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ART. I.—*Remarks on Plethora, read to the Medical Society of Tennessee, at its annual meeting, in May*, 1841. By SAMUEL HOGG, M. D., President of the Society.

So often and so ably has the field of our profession been explored by the most eminent votaries of the science, that I have no hope of being able to bring forward any thing new or particularly interesting on the present occasion, and shall be happy if I can advance aught that has practical usefulness to recommend it. If, indeed, in the feeble state of my health, and under the trying bereavement which I have been called upon to endure, I had failed to address the Society at its present meeting, no one, perhaps, would have been disappointed. But anxious as I am to advance the interests of our pro-

fession, and to contribute all in my power to the usefulness of our meetings, I have resolved to offer a few remarks on a subject of much importance—I mean that state of the system denominated "PLETHORA,"—a condition, the prompt attention to which would prevent some of the most violent of acute diseases and subdue most of those of a chronic character. In submitting the following observations concerning it, I shall attempt to show the existence of plethora as a primary, tangible cause in the production or perpetuation of disease.

Plethora may be divided into two kinds: 1st., that which is natural, or as necessary to the developement, perfection and perpetuation of the whole organism of the system; and 2ndly., unnatural, or that which may arise from any deleterious cause acting upon the economy so as to derange its healthy operations. This may again be divided into general, or that which seems to affect simultaneously the whole system; and partial, involving one or but a few tissues, becoming a focus of irritation, and, if not removed, implicating, in time, every part of the body.

The first species, or natural plethora, prevails in the system of every healthy infant at birth. Few of the tissues, at that period, are perfect, but there seems to prevail, from the general laws which govern the economy, an exaltation of the vital properties commensurate with the important office they have to perform, in maintaining the growth of the system and perfecting the various organs. This state of plethora, when no disturbing circumstances interfere, is greatly under the influence of stated, septennary periods, developing and perfecting the different organs as they become necessary in the economy of the system. At seven months, for example, we see the first process of dentition showing itself in the child; at fourteen months the second; and at twenty-one months the third; at which time most children have the full number of milk teeth. We see, also, at times, during these periods, considerable aberrations from the regular order of things, as *r.* want of balance in the circulation, irregular distribution of the nervous influence, and oppression of some im-

portant organ. Again, about the seventh year there seems to be a second revolution. The milk teeth are then removed, and a new set take their place; the mesenteric glands are more fully developed, and from that period to the fourteenth year, the development of the system is apt to progress healthily, unless great constitutional weakness exist, in which case these glands become diseased, and premature death is the consequence. In the south this is often the case. Children grow finely and promise well until about the sixth or seventh year, when they begin to decline and are carried off by tabes mesenterica, or some other visceral obstruction.

From the seventh to the fourteenth year, or the age of puberty, we witness nothing but the gradual growth of the child in stature and intellect; but about this period many highly important changes commence. Most of the great organs are perfected, and others are in progress towards maturity, making a demand upon the general capital exceeding that of any previous period. A rapid increase in growth commences, with increased susceptibility to the impressions of external agents, and an exhaustion of plethora in the tissues of supply, until about the approach of the next septennial period, when balance is established between them and the vessels of waste, and a state of the economy is the consequence similar to that in which man was originally formed. Although at the expiration of this latter period the organism may be perfect, and the system well balanced, yet from various causes, and particularly from the abuse of diet, drink, exercise, and sleep, and the excessive indulgence of the passions, the original excellence of the human organism has been lost, and a higher susceptibility at this period of our lives is awakened to various morbid influences.

After the third septennial period, so many additional causes are in operation, both moral and physical, that it becomes difficult to recognize the effects of the intervening periods until about the age of forty-two, when some failure generally begins to be visible in the animal functions. The individual becomes more intellectual; his ambition is now excited to the

highest pitch, and among studious men, if the passion be indulged, is apt to weaken the organic functions and lead to impaired health. Hence we see so many of our young men of promise, at the present day, the victims of dyspepsia, and other chronic diseases which make such frightful waste in this class of our society. I will only add, on this branch of my subject, fearing lest I should tresspass on the patience of the Society, that the life of man has been limited to a septennary period of three score years and ten, instances of longevity reaching beyond that age being only exceptions to the general rule.

Hoping that the preceding remarks will be sufficient to engage your attention to what I have yet to propose, I now proceed to treat of the second branch of my subject, to-wit:

Unnatural, or morbid plethora. This species I have divided into general and partial. At the expiration of the third septennary period, as has been observed, there ought to be a perfect balance between the tissues of supply and those of waste; but we often find that, from some cause, the vital properties of the former remain so exalted as to maintain the want of balance, and produce a deposit of more than the necessary amount of fat to answer all useful purposes, constituting what is termed obesity, the most simple form of disease arising from this general plethora.

We often see persons who have been brought up in a plain manner acquiring a competency, and then quitting their laborious habits and taking to a sedentary life, become suddenly corpulent, with the appearance of high health. But if you congratulate them on the change, they will tell you that they do not feel well. They are troubled occasionally with fulness of the head, or wandering pains in the abdomen or joints, evidently arising from the full habit, the result of the change in the mode of life. Many such persons I have seen suddenly taken off by some structural lesion, without any premonitory symptom.

This state of the system I have found exceedingly common in the South. The facilities enjoyed by the man of industry

and enterprise for growing rich in a short time are so great that he is often able to retire early in life from active business. He indulges freely in wine and the luxuries of the table; his excretions are not equal to the ingesta, and as a necessary consequence general fullness takes place, to relieve which he resorts freely to pills containing calomel as one of their ingredients. After a time these lose their effect, and beginning to feel more unwell, he applies to the doctor. He has now some pain in his shoulder or abdomen, with a soft tumor in the epigastric region just within the ilium, and slight soreness on hard pressure. What is it? His physician tells him it is "*liver disease;*" and as mercury is the specific, he must take calomel. He resorts to this Sampson, and as a large dose makes him feel better for the time being, the remedy must be repeated, whereby the liver is kept continually under the spur, until it becomes unable longer to resist its influence and structural lesions supervene, with dropsy of the belly as a consequence. I have often been consulted by persons laboring under this state of plethora, but have rarely been able, at first, to convince them that their disease was not one of the liver. From some experience in the treatment of such cases I am fully persuaded, that the liver is not diseased, and after a reasonable time I have generally succeeded in satisfying my patients of its soundness. What, then, is the matter, in such cases? I answer, the morbid condition is a general plethora, accompanied by complete engorgement of the cœcum, and I think the success of my plan of cure sustains this opinion. My first advice to such a patient is, to disgorge his pockets of the pills, and to quit his calomel—to disgorge his blood-vessels by the lancet, if any important organ seem to be threatened; and, finally, to disgorge his stomach and bowels, by strict abstinence, purgatives, or gentle laxatives, such as jalap or cream of tartar, calcined magnesia and the neutral salts, or magnesia and sulphur, by moderate exercise, and stopping his liquor. This course, if strictly adhered to, in a few weeks removes the plethora—the tumor and soreness in the abdomen give way, leaving a state of de-

bility, which a prudent increase of diet, with regular exercise, in a few weeks more, entirely overcomes. If the liver should remain sluggish under this treatment, and the stomach continue to be disturbed under vitiated secretions, a mild alterative course of the blue pill, with alkalies, and some of the bitter astringents, will set all right and perfect the cure.

Every experienced practitioner must have observed the supervention of a most dangerous form of plethora about the favorable termination of chronic diseases, increasing the susceptibility of the great organs to such a degree, that the sudden application of any disturbing cause leads to sudden death. Many such cases have I witnessed, in which, after a hearty supper, the individual has been seized with sudden disease and died almost without a struggle.

Another form of disease arising out of repletion, attendant particularly upon chronic affections, and also frequently succeeding hemorrhages, seems to depend upon general plethora, and is curable at its onset, but ultimately is apt to terminate in some local lesion of structure if neglected. This occurs, also, after important surgical operations. This general plethora we also often find in old persons. They generally increase the amount of their diet with age, use more animal food, at the same time being unable to take as much exercise. Their great organs, as a consequence, become less active, and are constantly threatened with congestions under every violent external cause. They die more frequently under the same circumstances, than young persons, and chiefly for want of prompt depletion, and disgorgement of the viscera, the plethora, giving rise to local oppressions, being unfortunately mistaken for direct debility. I might cite many other consequences of this form of plethora, but deeming the foregoing sufficient to illustrate the subject, I proceed to consider the second species with its multiplied and dangerous consequences.

In considering the numerous diseases which come on as a consequence of this condition of the system, or which are aggravated by its existence, I know of no better plan than to

take them in the order in which they occur in the different tissues, and as modified by the peculiar organization and vital properties of the tissues.

The first is the cellular tissue and the following are some of the affections which assail it:—phlegmon, carbuncle, furuncle, ulcers, anasarca, œdema, hemorrhage.

The next is the nervous tissue, which may be divided into that of animal, and that of organic life. It is of the first importance, and its diseases are more diversified and complicated than those of any other system. The diseases to which it is exposed are too well known to require a particular notice of them. Plethora is a frequent cause of them, and aggravates them whatever may be the cause which calls them into existence.

The vascular system, although simple in its functions, and subject to but few diseases, has nevertheless, a powerful influence in modifying the functions of the other systems. The veins and arteries are subject to inflammation, and the arteries to ossification, aneurism, contraction, and dilatation. The capillaries are most actively concerned in the various offices of the animal economy, and become involved in most of the diseases which assail the human body, plethora being the morbid condition by which they are perpetuated.

I might thus go on and speak of the exhalent and absorbent systems, of the osseous, the cartilaginous, the fibrous and the muscular systems, and of the mucous, serous, and glandular systems, with the disorders to which they are obnoxious; but I find that I must abridge these remarks, or I shall weary the attention of the Society. Plethora excited in any of these tissues becomes the cause of disease, and the great point in our treatment of them is to remove this morbid condition. I have said that, at birth, a natural plethora is a universal state, and this not being exhausted at the proper period, owing to accidental circumstances, the first care of the parent and of the physician ought to be to obviate the consequences of this failure. And this is to be done by a strict attention to the early physical and moral education of children, and by marriages

so directed as to counteract any predisposition to disease that may exist. What better can we expect, as the product of the connexion of a man whose thoracic or abdominal viscera are predisposed to disease, or whose glandular system is not healthily developed, with a woman equally deficient in the same organs, than a feeble offspring requiring the care of both parents and physician, struggling on to puberty, there to dwindle and die, just as the fears of friends were beginning to be lulled? Instances of this sort, unfortunately, are familiar to all practising physicians, and they are of a nature so withering to domestic happiness that every man should be warned by them, in forming marriage connexions, to look for a companion in whom this want of balance, this predisposition to disease, does not exist. The principle extends to all the organs and functions of the economy, equally the instinctive and the intellectual. A defect in any organ is likely to be perpetuated in the offspring of the individual, and is to be countervailed by the selection of a partner in whom the defect is not found.

The primary physical and moral education of children necessarily devolving on the mother, as a preventive of the evils which result from plethora, she ought by all the means in her power to promote the healthy development of every animal and natural organ, throwing it upon its own resources as early as possible, that by proper exercise of its weaker parts they may be invigorated and the organs of the whole system be brought to a healthy balance. Strict attention to diet, both as to quantity and quality, I consider essential to the healthy development of the abdominal viscera. It should be the constant care of the mother never to suffer the stomach to be goaded by too great variety, or by such quantity of food as, by the frequent over-distension of that organ, may induce gluttony, and impair both its secreting and muscular functions, and thus lead to dyspepsia, with all its wretched train of evils. Except the abuse of ardent spirits, I know of few excesses so productive of mischief, or even so demoralizing in its effects, as excess in eating. Show me an epicure who in-

dulges to excess in the luxuries of the table, and, as a general rule, you will find him a cold, calculating Shylock, destitute of every good feeling or sympathy, and bent only on his own profit or advancement.

By proper attention to diet and exercise during all the period of growth, I doubt not many of the deformities which we meet with might be prevented, and many operations for club-foot, strabismus, &c. be superceded. A vigor of constitution would also be imparted to the individual sufficient to sustain him under his intellectual labors, and prevent the many broken down constitutions which we daily see amongst the most promising men of our country. Permit me to relate two cases of congenital deformity which bear closely upon the subject under consideration: the first was that of a child with the patella in the ham. The nurse, in dressing it the second or third time after birth, discovered that it could not flex the left knee, which, on examination, was discovered to arise out of the cause alluded to. I was young in the practice, and the case was a novel one; but by bringing the dislocated bone around nearly to its place, and there confining it by a roller, I had the gratification of finding that nature overcame the defect, and that the child was put in possession of the perfect use of the limb. In the second case, a child eight or ten months old was subject to spontaneous dislocations of the shoulder. I ascribed the infirmity to a want of due antagonism between the flexor and extensor muscles of the humerus, and however false may have been my views of the pathology, the plan of treatment which I adopted in the case was entirely successful. The arm was drawn down to the side and kept in that position by means of a proper bandage, and the cold shower-bath applied to the shoulder, with frictions over the same part. The limb ultimately became strong and healthy under this treatment.

I will add, on the subject of the early education of children, that it equally concerns their happiness in life that a due balance be maintained between the various faculties of the mind. Much may be done by early culture to repress the strong and

bring out the weak, and the character of the individual may thus be greatly modified and improved. With but this glance at a subject possessing the deepest philosophical and practical interest, I hasten on to the last part of my subject—the indications to be answered in the treatment of partial and general morbid plethora, and the diseases which owe their origin to one or the other of these states.

General morbid plethora being that fulness of habit which arises from the want of balance between the tissues of supply and those of waste, necessarily implies either an exaltation in the vital properties of the former, or a failure of the latter to perform their functions. The first may be occasioned by excess of ingesta, causing oppression of the secreting organs and a failure in their functions. This form of general morbid plethora is the most simple, and points plainly to the proper treatment, viz: to lessen the ingesta both in quantity and quality; to avoid excitants; and, if danger of local congestions arise, to reduce the circulating mass either by general or local bleedings, and by occasional brisk purgatives. These, together with prudent exercise, aided by the recuperative powers of the system, will generally succeed in restoring the lost balance and in preventing the progress of the disorder to a more serious state.

The second form, or that arising from a failure in the function of the secreting organs, the tissues of supply not being inordinately excited, in most instances may be relieved by a mild alterative course of mercury, occasional gentle laxatives, and such specific remedies as excite the oppressed organ to more copious secretion. In the end, the preparations of iron may become necessary, with the bitter astringents, and in all cases, exercise, it must be remembered, is a remedy of the first importance.

Partial morbid plethora may arise from various causes, as sudden and violent impressions on the secreting tissues, or the frequent application of an agent which excites the system above the natural standard. If it be in a tissue not essential to life, the conservative powers of the system will remove it

by resolution, effusion, or healthy suppuration. But if it be a tissue involving extensive sympathies, with functions important to life, a focus of irritation is set up, other tissues become involved, and general constitutional derangement is, at length, the result, demanding a course of treatment which will subvert this general irritative fever, promote the various secretions implicated, and remove congestion and its consequences. A judicious modification of the plan already proposed will generally accomplish this end.

I trust I shall not be deemed presumptuous in expressing my belief that here lies the great practical error of most of the French pathologists. They overlook that intermediate state of plethora, and the morbid effects of the retained elementary principles of the various secretions, which generally exist for a given time after the impress of the morbid cause, before phlogosis actually supervenes. Pursuing a negative, expectant course of treatment, a remora in the circulation takes place, with congestion and its consequences, acute or subacute inflammation; the susceptibility of organs is lost to the impress of such therapeutic agents as might have thrown off the offending excretions, disgorged the oppressed viscera, and, with the aid of the *vis medicatrix naturæ*, cured the patient. They do not appear to have drawn the distinction between the mild irritative fever resulting from this intermediate state of plethora, and that modification of morbid action, the result of phlogosis, which necessarily oppresses the vital powers to a degree which would forbid any further excitation. The Society will pardon this digression.

I will now proceed to the consideration of a few of the diseases arising out of local irritation of the different tissues which most frequently require the physician's attention; and hope to show that, in at least a majority of such cases, the treatment which succeeds will go far towards sustaining the opinions here advanced respecting the agency of plethora in producing and perpetuating them. In the cellular tissue we have phlegmon, ulcers, anasarca, &c.; in the nervous, convulsions, disorders of the senses, hysteria, hypochondriasis,

&c. The vascular system is obnoxious to inflammation and its consequences, contraction, ossification and its effects. In the capillary division of this system we note over-distension, suspended secretion, absorption, &c. The mucous, serous, and glandular systems are all subject to diseases arising from a depression of their vital properties, and a consequent failure in their ordinary functions, and retention of the elementary principles of their specific secretions. Now, suppose phlegmon to arise in the first named tissue, do we not, in its primary stage, attempt its cure by resolution, in other words, by a course of treatment that will lesson the vascular fulness, remove local irritation, and thereby prevent congestion and its consequences? Who at the present day would attempt the cure of dropsical effusions, except by the judicious use of the lancet, such medicines as promote active excretion, and, in the sequel, such tonics as are fitted to restore the organs to their normal condition, and aid the recuperative powers of the system in removing all disposition to plethora? From the nature of nervous diseases, and their effects on the animal economy, I am forced to believe that plethora of the investing membrane at their origin, or in the neurilema, must exercise considerable agency in producing and increasing them; and although powerful stimulants and antispasmodics occasionally act promptly as palliatives, still we find that, as a general rule, in this class of affections, the only radical cure is to be found in reducing the tone of the vascular system by prudent venesection, in allaying nervous irritation by appropriate remedies, in the judicious administration of such alteratives as excite the oppressed organs to free secretion, and in a regulated diet, and appropriate exercise.

I might go on to remark on the diseases of the other tissues, but I have said enough to illustrate the principle, and shall not trespass on your patience any farther. Let me observe, briefly, that it strikes me as a sound proposition in our profession, that the course of treatment which cures most generally and most promptly, under given circumstances, is the best; and that safety and success in practice are stronger ar-

guments for the soundness of our theories than any which auscultation or post mortem examinations can supply. Not that I wish to disparage either of these valuable sources of information. The French pathologists have labored with a zeal worthy of all praise in these departments of medical science, and aided by the large institutions of Paris have thrown much light upon the changes in the human organism wrought by disease. But if they have not been rendered by the character of their researches too exclusive in their views, I am sure that the practitioner in this country, with limited opportunities for the use of the stethoscope and dissecting knife, is likely to be made so by depending too far upon the teachings of these instruments. He is apt to treat with contempt every fact and suggestion offered by those who have derived their knowledge at the bed-side, unless they happen to be in accordance with what he has been taught by his scalpel or stethoscope, and relies upon an expectant plan of treatment, confident that he will be able by post mortem dissections to verify his preconceived opinions.

In conclusion, I would remark that, in the treatment of disease, particularly in the Valley of the Mississippi, we should consider the system as a whole, duly appreciating the sympathies which subsist between all its parts, and avoiding the error of taking too limited or exclusive views in reference to the disorders by which it is assailed.

ART. II.—*Diaphragmatic Hernia.* By GEORGE W. BAYLESS, M. D., Demonstrator of Anatomy in the Medical Institute of Louisville.*

LOUISVILLE, Wednesday, June 2, 1841.

The committee on Post-mortem Examinations, Morbid Anatomy, and Pathology, beg leave to make this their first report; being an account of a case of Diaphragmatic Hernia, together with some remarks on that disease.

REPORT.

As one of the attending physicians of the Louisville Marine and Charity Hospital, a member of your committee was notified to attend a post-mortem examination of the body of John ——, on the 19th of September, 1840; and, upon dissection, there were found some morbid appearances which are deemed of sufficient interest to form the subject of a report to the Association. But before giving an account of them, we will briefly enumerate such facts in the history of the individual as have a bearing upon the subject, as far as they have been ascertained.

This man, a native German, was aged 35 years—was about four feet high—had a very large head—body of medium length and size, but chest large in proportion to the remainder, being prominent and expansive in front, and increased backwards by posterior curvature of the spine, while the lateral diameters were also considerable—lower extremities, thighs slightly, but permanently, flexed upon the body, probably in consequence of having been always a great-deal in the sitting posture, legs permanently bent almost at right angles upon the thighs, which was probably from a congenital contraction of the flexor muscles of the thigh, as he had been so from

*This paper was read before the Louisville District Medical Association, at its June monthly meeting, in behalf of the committee on Post-mortem Examinations, Morbid Anatomy, and Pathology.

birth: the lower extremities were also considerably atrophied, probably from non-use. His sister, who accompanied him at the time of his admittance, stated that he had been idiotic, had curved spine, and flexed lower extremities, from birth—that he had never walked, and it had always been necessary to carry him about; but that he had enjoyed rather robust health. From the time of his admittance, he remained altogether in his bed, sometimes in the sitting but mostly in the recumbent posture--was observed to be an enormous eater—that his bowels were habitually constipated, there being usually an interval of from eight to fourteen days between the time of his having an evacuation, which always consisted of an immense bulk of hardened fecal matter—but that his general health remained good, having only an occasional attack of dyspnœa, which was *slight* in its character, of from half an hour to three quarters in duration, and brought on by mental excitement, such as being irritated by his fellow inmates, but more frequently by rising suddenly in bed. The attention of the visiting physician was never called to him, and the resident students never made any examination in reference to the action of the heart. He never complained of pain in the thorax or abdomen, until he was attacked with dysentery, when there was only the pain that is usually attendant upon that disease, which was prevailing in the house at the time, and of which he died. It is deemed unnecessary, by your committee, to detail the facts connected with his last illness, as they relate only to the dysentery under which he labored, and have no bearing upon the lesions to which we would call your attention.

The examination was made twenty-nine hours after death. Upon laying open the abdomen to examine the bowels in reference to the disease of which he died, the stomach was observed to be out of its usual place; or rather, there was only a small portion of its pyloric extremity visible. Tracing it from this, we found it empty, and that almost the whole organ, which was of maximum size, had passed through a large opening in the diaphragm into the cavity of the thorax. The

opening consisted in an enlargement of the natural foramen for the transmission of the œsophagus, was circular in shape, fully two inches and a half in diameter, with its edges about a third of an inch thick. The peritoneum, as it covers the diaphragm, was reflected through the opening around its whole edge, passed vertically about four inches into the cavity of the thorax, thus forming a hollow cylinder of that length, and two inches and a half in diameter; and having reached that height, the membrane concentred upon the œsophagus, which was placed in the axis of the cylinder, and thence passed down it upon the stomach, and on to the other viscera. Thus was formed a *cul-de-sac*, in which the stomach was lying; but we should remark, however, that it was not perfectly cylindrical, for that it was enlarged above so as to make it somewhat balloon shaped. The peritoneum forming the sac, was thickened to about double of what it usually is. We found no lesion of any of the viscera of the abdomen, having any connexion with that of the diaphragm. Upon opening the thorax, the left cavity was observed to be somewhat smaller than the right, in consequence of the protruding stomach, which was found lying in the posterior mediastinum, trespassing slightly upon this cavity; but notwithstanding, it was sufficiently capacious to allow the natural function of the lung, which was in a normal condition. The right lung was adherent throughout almost its whole surface to the contiguous parts by old adhesions, and so firmly to the diaphragm as to require a very careful dissection to effect its separation. The stomach, (as has been observed,) with its containing peritoneal cul-de-sac, was lying in the posterior mediastinum, in the natural position of the œsophagus, inclining therefore to the left side of the spine, and infringing more upon the left than the right pleural sac. There was no perforation of either of the pleuræ; and at the base of the protruding peritoneal sac, for near an inch above the edge of the diaphragm, the left pleura, as it commences ascending to form the mediastinum, was separated from the peritoneum by only a thin layer of cellular substance; but above this a greater amount

of loose cellular texture was interposed between them. The protruding parts were not found to pass sufficiently high and to the left to offer any mechanical interference with the action of the heart, which was in a normal condition; but it will be recollected that we could gather no facts relative to the manner in which this organ discharged its duty.

Whether as mere coincidences, or as having a necessary connexion with those already described, we pretend not to say, but as occurring in like structures, your committee deem it right to mention briefly some lesions which were found in the head; and the condition of the spine to which the curvature was owing. In the first place, the bones of the head generally, but particularly those forming the vault of the cranium, were in a state of manifest hypertrophy, being in some places well nigh half an inch thick. On their inner surface, (especially the parietal and frontal bones,) were found a considerable number of exostoses, in the form of conical projections, about the fourth of an inch high, and the third of an inch in diameter at the base. In employing the term exostosis, we intend it to signify "a bony excrescence, similar in its structure to the osseous tissue in its normal condition," as it is defined by Professor Gross in his work on Pathological Anatomy. The dura-mater adhered with unusual firmness to the skull, but particularly to these projections. On the inner surface of the dura-mater were found a number of osseous deposits. These existed most abundantly in the falx cerebrum, along the superior longitudinal sinus; where they varied in size from masses of an oblong shape, an inch long and a half an inch wide, to mere points. There were some of them scattered throughout the whole of the falx major and tentorium; and wherever found consisted of very hard, white osseous masses, very rough on their free or cerebral surface, but smooth on that by which they adhered to the dura-mater. The distortion of the spine consisted in a posterior curvature, which was somewhat gradual between the first dorsal and last lumbar vertebræ, being greatest however at the middle of the dorsal, where the deviation from the natural position was about two inches and

a half. There was also an observable curvature to the right side. The bony structure of the column seemed to be in a perfectly healthy condition; but the intervertebral substance, in all the spaces included within the curvature, was deficient in its anterior part, and from the first to the eighth dorsal vertebra, the absorption was so complete as to bring the anterior edges of the vertebræ immediately into contact. This absorption or atrophy of the intervertebral substance, may have happened in one of two ways: either as an original, or congenital, mal-formation; or by atrophy of the erector muscles of the back, by which the parts in front of the spine would preponderate and cause the anterior portion of the intervertebral substance to be unduly pressed, and absorption result as a consequence. The former we think most probably true, as it was stated, by his sister, that the curvature existed from birth.

Your committee having thus given an account of this individual case, as briefly as was compatible with perspicuity, think that the infrequency with which this subject is brought before the profession, added to the fact, that it is unquestionably one of no little practical importance, from the incorrect diagnosis which is almost invariably made, and the equally erroneous, if not injurious, practice that is employed, when cases of the disease occur, we say, from such considerations, your committee think that it will not be altogether inappropriate to add some general remarks on the nature, varieties, causes, and symptoms of the disease. And in doing so, they trust that they will not be considered to trespass upon the time and patience of the society.

The disease may be defined to be, a protrusion of one or more of the abdominal viscera through a natural opening, deficiency, or wound, of the diaphragm, into the cavity of the thorax.

It may occur at any period, from fœtal existence to the termination of life; but from the cases mentioned and referred to by the authors whom we have consulted, and such as we have been able to collect from a large number of periodicals

we are induced to believe that the lesion, by which protrusion takes place, is congenital in by far the greatest number of instances. This probably happens from the inverted position which the fœtus generally assumes, whereby the pressure of the viscera of the abdomen may cause a protrusion, either by dilating some one of the natural openings of the diaphragm; or by causing a separation of its muscular or tendinous fibres, at some part where an uncommon laxity of them may exist: or, possibly, from some accidental pressure upon a particular part, by which the process of nutrition is prevented, and an unnatural opening thus produced. We merely throw these out as suggestions; being fully aware that the determining causes of malformations are enveloped in great mystery. The existence of even a large protrusion does not materially interfere with the well-being of the fœtus; for the function of respiration being not yet called into requisition, the mere mal-position of the organs could not affect its health and general development. In regard to the comparative frequency of its occurrence at different periods of *extra-uterine* life, we have not facts sufficient to justify an opinion, and authors are silent upon the subject. Spontaneous rupture is not apt to take place; because, from position, the forces which usually produce rupture in other parts of the abdomen cannot act with any effect upon the diaphragm. Indeed, during the period of existence alluded to, the disease arises almost invariably from wounds, and they may of course occur with equal facility at all periods, so far as the structures themselves are concerned.

Protrusion happens more frequently on the left than the right side of the diaphragm. This arises from the fact, that a kind of protection is given to the diaphragm by the liver, which lies in contact with the most of its right half, and which itself, from the extent of its surface, is not apt to protrude through any natural or unnatural opening which may exist. Instances however have occurred in which it has taken place on the right side. Sir Astley Cooper* refers to two

*On Hernia.

cases; in one, some of the "abdominal viscera had passed into the right side of the thorax;" and in the other, "the right extremity of the stomach, and beginning of the duodenum, a part of the omentum, and the arch of the colon" had passed into the right side, through an opening situated a little distance from the right side of the ensiform cartilage. Mr. Lawrence† also refers to cases in which the protrusion occurred on the right side. In one, a child that died shortly after birth, the whole liver had passed into the right side of the chest; in the other, "part of the colon, and nearly the whole of the omentum," had passed into the right cavity through an opening near the gall-bladder.

According to the division of Sir Astley Cooper, which is founded in nature, and we deem the best that can be made, there are three causes or varieties of this disease, as we have already intimated in the definition which we gave it, viz: first, where it results from malformation of the diaphragm, such as a preternatural opening; secondly, where protrusion takes place through one of the natural foramina, enlarged from whatever cause; thirdly, from wounds.

First of malformations. Not taking into the account those protrusions which take place from wounds, this variety is by far the most common. Why this occurs more frequently than protrusion through the natural foramina, it is difficult to say; for the reason that the determining cause of these lesions is wholly beyond our reach. We have already said that both of these lesions are much more apt to take place on the left than right side, and we assigned the most probable reason for it; and in regard to that under consideration, we may safely say that it occurs more frequently in the muscular than in the tendinous portion of the diaphragm. This may arise from a greater tendency to laxity, or to use better language, *atrophy*, of the muscular than tendinous structure; by which the same mechanical pressure, of the superincumbent viscera in the inverted position of the fœtus, would effect a hernia in the muscular, when it would not in the tendinous portion. For

†Treatise on Hernia. London, 1838.

it will be recollected that these lesions are of almost infinitely greater frequency in fœtal existence than afterwards; and in regard to the greater tendency to *atrophy* of the muscular than tendinous structure at this period, we are strongly support- by the analogy of its greater frequency in extra-uterine life.

In the variety of the disease which we are now considering, the unnatural opening may have a sac formed by the peritoneum and pleura; or these membranes may terminate at the margin of the opening by running into each other, and thus give it a rounded and smooth edge. The comparative frequency of these states is decidedly in favor of that in which the sac does not exist.

When an opening of this kind exists, whether supplied with a sac or not, a temporary protrusion may take place, of a greater or less amount of the abdominal viscera, according to the size of the opening, and the force causing the protrusion, bringing on such symptoms as will be mentioned in a subsequent part of this paper; and after a greater or less time, according to circumstances, the parts may return to their natural cavity, with a subsidence of all the symptoms. Or on the other hand, inflammatory action may be set up, and, if gangrene do not result, adhesions will be produced, and the parts retained in their unnatural position.

In illustrations of these several propositions, we might adduce a considerable number of cases, but we must content ourselves with a brief allusion to a few.

In the 9th volume of the Transactions of the Royal Society of London, Fothergill relates the case of a child that suffered from laborious respiration and disordered bowels up to the time that it was ten months old, when it was weaned; in six days after this it was seized with violent vomiting, which terminated fatally in twenty-four hours. Upon examination, a large portion of the stomach, the cœcum, a large portion of the ileum, and a portion of colon, were found in the left side of the chest: having passed through an opening which extended from the sternum and cartilages in front, down to the tendinous centre

of the diaphragm. We have already alluded to a case given by Sir Astley Cooper, in which some of the abdominal viscera had passed into right side of the chest, through an opening a little to the right of the ensiform cartilage. We must again refer to it, as it presents the interesting feature of a sac formed by the pleura and peritoneum, and which contained the protruding parts. In the 19th vol. of the Med. Chirurg. Rev. is an abstract of a case, by Cruvielhier, in the person of a female aged 75 years, rachitic, and for several years subject to temporary colics. She died labouring under the ordinary symptoms of hernia, attended with constant vomiting. The stomach, large intestine, and some portions of small intestine were found contained in "a sac," in the left side of the thorax. Another case is detailed at some length by Sir Astley Cooper, of a woman aged twenty-eight years, who had from childhood suffered pain in the left side, slight cough, and difficulty of respiration; and died laboring under symptoms of strangulated hernia. An opening was found in the muscular portion of the diaphragm, three inches from the œsophagus, circular in shape, two and a half inches in diameter, with the peritoneum terminating abruptly at the edge, which was smooth and somewhat thickened. The protruding parts (the arch of the colon, and nearly the whole of the omentum) were in a state of incipient gangrene; and the omentum adhered firmly to the edge of the aperture. In the Lancet for April, 1832, Mr. Edwards relates a very interesting case, of a "delicate female, of fine complexion, and exquisite symmetry, who had from infancy enjoyed imperfect health. She was subject to frequent attacks of dyspnœa attended with acute pain in the region of the heart. These came on suddenly, without any apparent cause, and went off as unaccountably." She married at the age of 22, and soon after became pregnant, when the attacks of dyspnœa became more frequent and of longer continuance; but by great care, she went on to full term. At this period, soon after feeling what she supposed to be labour pains, she had an attack of dyspnœa, which became much worse than usual, and after suffering considerably from vom-

iting, purging, and great prostration, she died in nine hours from the commencement of the attack. On examination, the arch of the colon, the omentum, and pyloric half of the stomach, were found almost filling the left pleura, compressing the lung against the mediastinum. The protrusion had taken place through an opening a little anterior to the cordiform tendon, the peritoneum and pleura terminating at its margin, which was bounded by a tendinous ring. There was, of course, no investing sac to the protruding parts, which were adherent to different points of the pleura, but not to the edge of the opening. They were also gangrenous. No lesion of the heart.

Besides these, as illustrating the same points, we might quote a case from the 27th vol. of the Med. Chirurg. Rev.—one from the 26th vol. of the Edinburg Med. and Surg. Journal—and one from the 14th vol. of the Philadelphia Med. Journal, together with several from Sir Astley Cooper and Mr. Lawrence. But those which we have noticed are sufficient for our purpose; and circumstances impose upon us the propriety of perhaps even greater brevity than we have used.

We next come to speak of hernia, as it occurs at *the natural apertures.* This is not only comparatively but absolutely of rare occurrence. And this fact gives strength to the suggestion which we made when speaking of malformations of the muscular portion, viz: that *atrophy* has not a little to do in the matter. For leaving this out of the question, we conceive that, in the fœtus, hernia would be much more likely to occur at the natural apertures, than by a mechanical separation of the muscular fibres, by superincumbent pressure, as some have supposed. Why this species of hernia occurs so rarely notwithstanding the favorable position which the fœtus assumes, we are not able to say; but Nature probably gives to these apertures a protection which we do not well understand. That it does not occur more frequently in extra-uterine life, is sufficiently plain; for the forces tending to produce rupture in other regions of the abdomen, here have to operate against the gravity of the parts to be thrust out. To

the fact itself, of its rare occurrence, we have the united testimony of the great barrenness of periodicals in such cases, and the opinions of the best authors upon the subject. Indeed in a very large number of periodicals which we have searched, we have not been able to find a single case of the kind related. Sir Astley Cooper and Mr. Lawrence, who have written the most extensive and systematic treatises on hernia, and who are the only authors, within our reach, who treat at all of *diaphragmatic hernia*, concur in the opinion that this variety is very rare. The former says that he never met with an example of it; and refers to but two cases, in Morgagni. In one of these, "part of the colon, a large portion of the omentum and pancreas" had passed through the opening for the transmission of the intercostal nerve. In the other, the duodenum, jejunum, part of the ileum, and omentum, had passed into the thorax through the opening which transmits the œsophagus. This occurred in a young man, who was suddenly attacked with severe pain in the region of the stomach, and vomiting of a great quantity of blackish matter, but whose previous history is not mentioned. The reference is also wanting in a statement as to whether the parts were contained in a sac; but from their great magnitude, compressing, as he says, the heart and lungs into a narrow compass, we suppose that no sac existed. The latter author (Mr. Lawrence) is silent in regard to his own experience, and we therefore think it fair to presume that he never met with an instance of it. He refers to but one case, in which his own mind was satisfied upon the subject; in that, the stomach and part of the omentum had passed into the chest, through the œsophageal opening. So far then as our research has extended, we have not been able to find a case on record precisely parallel to the one described in the first part of this communication.

Lastly, hernia proceeding from *wounds of the diaphragm*, will occupy our attention. In considering the comparative frequency of the varieties of the diaphragmatic hernia, we have not taken this last into the account; for as the same cir-

cumstances could not influence their production, we did not deem such a comparison entirely legitimate. In regard to the absolute frequency of the occurrence of this last, it is probably greater than would at first be supposed, from considering the position of the diaphragm in the body. Such wounds *might* happen in various ways, but they *have* happened most frequently from cutting weapons, such as swords and knives, and the fracture of ribs. Of course we say nothing of the comparative frequency of their occurrence in different regions of the diaphragm; for happening as they do, in every instance, from external violence, they may take place with equal facility in any part of it. But an abstract of some cases which we are enabled to present, will give a better idea of the nature and varieties of this accident, than any general remarks of our own.

In the "Revue Medicale" for July, 1823, Cloquet relates a case in which a man had his thorax compressed from before backwards by two carriage wheels. He died in thirty-six hours after labouring under great pain in the chest, difficulty of respiration, and accelerated and intermittent pulse. On examination, the soft parts of the walls of the thorax were not lacerated, but several ribs were fractured, and there was found a rupture of the diaphragm on the left side, extending towards the centre, through which the whole of the stomach, and most of the colon, had passed into the left side of the chest, greatly compressing the heart and lungs. In the 4th vol. of the Brit. and For. Med. Rev. is mentioned a case of a man who received an injury of the chest by falling from a great height, which brought on great pain near the sternum, dyspnœa, and respiration only on the right side—death following after a few days. The eight superior ribs of the left side were found fractured, and a laceration of the diaphragm, on the left side, to the extent of four or five inches, through which the stomach, half of the duodenum, spleen, transverse colon, and the edge of the left lobe of the liver, had passed into the left pleura. Sir Astley Cooper mentions a case which came within his own observation. It happened in

the person of a man, who fell from a considerable height, and received the shock of the fall on his back against the edge of a pump. He had great pain, and difficulty of breathing, violent vomiting and hiccough, and died in about nineteen hours. Several of the ribs of the right side were found fractured, the extremity of one of which had penetrated the diaphragm, producing a laceration of some considerable extent, through which a portion of the ileum had protruded, and become so strangulated by the edge of the muscle as to be in a state of incipient gangrene. He also mentions another furnished him by a surgeon in the British navy. A man fell, from the height of six feet, on his left side; soon after had nausea, vomiting, restlessness, difficulty of respiration, feeble and scarcely perceptible pulse, and obstinately constipated bowels, all of which increased until the fifth day, when he died. There was found a rupture of the tendinous part of the diaphragm, of near three inches in diameter, through which the stomach, and part of the duodenum, had passed into the left side of the chest. The stomach was greatly distended, and occupied almost the whole of the left pleura, greatly compressing the lung and heart. Mr. Lawrence quotes a case from the 10th volume of London Med. Gazette, of a man who was wounded by a broad pointed knife, which entered the left side, "between the fifth and sixth ribs, and penetrated to a considerable depth." A small portion of the left lung protruded through the external wound, was excised, and he recovered. From this time he suffered spasms in the region of the stomach, but was able to follow his occupation of steward on a ship, for several years. He was at length attacked with severe pain in the abdomen, attended with vomiting and constipation of the bowels; stercoraceous vomiting came on, and death took place in fifteen days, "under circumstances clearly indicating internal strangulation," says the author. An opening was found in the tendinous part of the diaphragm, through which the whole of the omentum had passed into the left cavity of the chest, the portion lying in the orifice of the diaphragm being firmly tied to it by old adhesions, while a por-

tion of the colon was embraced and "firmly constricted" by it.

We might, in addition, adduce several other cases, but think that these will suffice.

Having thus considered the three varieties of the disease, it only remains for us to say a word on the *symptoms* which usually attended it. Here we may abridge, by saying, that the ordinary symptoms of hernia, whether reducible or strangulated, attend protrusions of the abdominal viscera through the diaphragm. We have in addition, such a condition of things as would be supposed to result from the existence of a foreign body in the cavity of the thorax: such as pain, difficulty of respiration, and greater or less irregularity in the action of the heart. And notwithstanding Mr. Lawrence asserts that it is impossible to make out the diagnosis, yet we think that where an opening exists, by which some of the abdominal viscera may protrude temporarily, and return again to their natural position, producing all the symptoms of hernia, together with dyspnœa, &c. which subside again suddenly, and without any obvious cause, we say, these symptoms, together with the non-existence of any thoracic disease to which the dyspnœa could be attributed, would strongly point to the disease under consideration as the cause of the symptoms.

ART. III.—*A Case of Gun Shot Wound involving the Colon, Small Intestines and Right Kidney, attended by recovery:* Reported to the Medical Society of Tennessee, at its annual meeting in May, 1841: By JOHN W. RICHARDSON, M. D., of Rutherford County, Tennessee.

On the 26th of last November, I was called, in company with Dr. Watson, to visit Mr. K., a young man who had shot himself about 9 o'clock in the morning. On examination two hours after the wound was received, we ascertained that the ball, which weighed ʒiiss, had entered the abdomen on the right of the median line, and passed out about midway between the last rib and the sacro-iliac junction, immediately on the right of the spine.

Patient composed and very pale—abdomen natural—extremities cold—pulse regular and small—no hemorrhage. A plaster of simple cerate was applied to the wounds, and a poultice of wheat bran and ground mustard applied to the abdomen and right side, reaching even to the spine. A warm blanket was placed over him, and we awaited the consequences of the injury. At 2 P. M. he discharged nearly a pint of urine, the latter half of which was almost black with blood. At 4 o'clock, he passed urine again, but no more blood.

27th. Saw the patient at 9 A. M. Pulse 110, soft and small, though very regular while he is resting *perfectly quiet.* Abdomen becoming tense and swollen. Slept some during the latter part of the night. Complains much now of pain in the abdomen and back. Urine discharged regularly since yesterday evening, and of a healthy character. Gave two enemas, which were passed off very slowly without any fæces. Treatment the same, only discontinue the mustard. The poultices to be applied every six hours.

28th. Saw the patient at noon. Abdomen more tense and swollen, attendedwith considerable soreness and pain, which were greatly increased by the slightest pressure. Pulse 100, small though pretty firm. On moving him from his back to his

side, his pulse sunk and became weak and irregular. Slept some in the latter part of the night—great thirst—turning from his side to his back, or vice versa, produces great sickness and disposition to syncope;—rests easiest on his back, and easier on the right side than on the left. Gave an enema made of warm water and strong soap, which was discharged very slowly, with much flatus, but feculent matter. The discharge of so much gas afforded some relief, and I *thought* somewhat reduced the swelling and tension of the abdomen, but whether it really did so I am not certain. Urine discharged regularly. Ordered a tea spoon full of spts. nit. dulc. every two hours, and 12 drops tinct. digitalis every four hours; same dressing continued.

29th. Slept some since yesterday, though suffered very much with pain in the abdomen and back all night; pulse 100, regular, and perhaps not quite as firm as on yesterday; abdomen, if any difference, more tense and swollen; tongue coated with a white fur in the middle, the fore part and edges being clean and not redder than usual; thirst still very great. Same treatment continued.

30th Noon. Slept more; tension and swelling somewhat subsided: pulse 90; tongue as yesterday; eyes and skin quite yellow; great thirst; wounds beginning to slough. Continue the treatment.

Dec. 1st. Swelling, tension and soreness all subsiding; slept some; pulse 90, soft and regular; not so much thirst; skin and eyes still yellow; urine healthy and discharged at the usual intervals. The spts. nit. and digitalis partially discontinued. Same dressing continued.

5th. Patient has remained in pretty much the same condition since the first. Fur on the tongue whiter and longer: yellowness of skin and eyes has disappeared; urine still healthy. Same dressing continued.

6th and 7th. General condition improved. Poultice discontinued, as its weight produced some uneasiness, and the abdominal swelling had nearly subsided. Spts. nit. and digitalis also discontinued. Urine healthy and discharged regu-

larly. As he still seemed quite thirsty, I ordered a tea spoon full of cream tartar to a glass of sweetened water, to be taken as often as desired; a plaster of simple cerate to be kept over the wounds.

8th and 11th. Patient still improving; posterior wound nearly healed; anterior healing kindly.

12th. Enema given, which brought off a large, healthy feculent discharge, without any pain.

13th and 16th. Patient still improving; On the 16th my visits were discontinued, and on the 5th of January he rode home, a distance of four miles, and had, to all appearance, entirely recovered.

Remarks.—The patient ate his breakfast as usual; immediately afterwards had a large evacuation from his bowels, and returned to the house and shot himself. We were not able to trace the wound even into the abdominal cavity, a circumstance which I ascertained upon examination, after the failure, to have been produced altogether by a change of position. For I went to the spot where he was found upon the report of the pistol, and soon discovered that he was *sitting* when he shot, although he was found by the first attendant standing on his feet.

The ball entered the abdominal cavity one inch above a line drawn from the umbilicus to the anterior superior spinous process of the right ilium, and came out at the point before mentioned, viz: about midway between the last rib and the sacro-iliac junction; and I infer that it cut the colon the small intestines, and passed through the right kidney. This was my opinion at the time I first examined the case, and I have found no cause to change it. If the small intestines were very full, and the colon entirely empty, in some conditions of the body the colon might have escaped, though in the present case I think it did not. About two hours and a half after the injury, the patient threw up his breakfast but nothing else that I could discover. There was never any escape of gas, or feculent matter from the wound.

That the ball cut the kidney, I regard as positively certain. Its exit allowing it to have pursued a straight course in its passage, puts this point beyond dispute. And even if a doubt still existed, it seems that the *blood* discharged with the urine, in addition to the course of the ball, would dispel the doubt. The question might be asked, why was there no more blood discharged after the first urination? And *another* might be asked by way of answer, why, if the kidney was not wounded, was any discharged at all? and from whence did it come? But there can be no doubt that the blood did come from the kidney, the upper half of which was lacerated; and it is probable that a coagulum formed in the pelvis and prevented the entrance of any more into the ureter.

The treatment was of the simplest character; for the case was one of that class in which little is left for the surgeon or physician to accomplish. The patient was a young man in good health, and perhaps in as fine a condition to recover from such an injury as we can imagine. The dressing was simple, and yet seemed to be all that the case required. The pulse was of the kind we usually find in gun shot wounds, where the intestines are injured, and such as attends the wounding of the abdominal viscera generally. The extremities were cold; another circumstance always present in such injuries.

While our patient lay still and quiet, his pulse was quite firm and 100 in a minute, yet upon the least exertion it became feeble, soft and irregular. In all such cases, when any doubt exists as to the propriety of blood-letting, it is advisable that the patient be gently moved; even make him change his position in bed, and if the pulse assumes the character above noticed, bleeding would be injurious. At the time when the inflammation was progressing so rapidly I should perhaps have used local bleeding, but it was not practicable to procure leeches, and there was so much soreness over the whole abdomen that cupping would have increased, rather than mitigated the evils anticipated.

The condition of the bowels presents us with an impor-

tant principle in the treatment of such cases. Two enemas were given during the day after the injury, and one on the following day; yet no feculent discharge was produced. I then became satisfied that the lower bowels were emptied by the evacuation just before the injury was committed, and did not use the syringe any more until the 12th of December, seventeen days after the injury, when a copious and healthy stoool was produced. This course was adopted for the purpose of permitting the intestines to remain perfectly quiet, in order that nature might, if possible, repair the injury. The patient was not allowed any article of diet during his confinement, except milk, and apple water, or some such drink.

The yellowness of the skin and eyes on the 5th day produced some uneasiness, but in a short time it disappeared, and no appearance of biliary derangement was manifested, unless the condition of the tongue indicated it.

I cannot but believe that if V. S. to any extent had been practised, or the daily use of the syringe resorted to, a greater prostration of the vital organs would have been produced, and an irritable state of the bowels brought on, which would have placed the patient in a much worse, if not in a hopeless condition. The case, however, has taught me a valuable lesson; and that is, that in cases, when so little remains to be done, not to bring business on my hands by *doing too much;* nor to give remedies in anticipation of what *may* happen. In this case, we witness also the great restorative powers of Nature. Not an unfavorable circumstance, considering the extent of the injury, occurred from the first, and such as did appear were much milder than were to have been expected; and some of the most alarming symptoms usually attendant upon such extensive injuries did not occur at all.

ART. IV.—*Cases of Wounded Arteries of the Arm, relieved by the Bandage:* Reported to the Medical Society of Tennessee, May, 1841. By Dr. GEORGE THOMPSON, of Jefferson, Tenn.

Case 1.—A young man received a wound from a long knife in the fore-arm. The knife entered about the middle of the fore-arm, and, passing obliquely upward, wounded the ulna artery just below the point of separation from the radical. The hemorrhage had been considerable, but was arrested by the application of a bandage around the arm above the elbow. In this situation he came to my shop, an hour after he had received the injury. A compress was laid over the course of the wound, and another over the brachial artery, at the point where that vessel could be most conveniently compressed against the humerus. A roller was then carefully applied from the points of the fingers to the shoulder, so tightly as barely to permit a sufficient quantity of circulation to maintain the vitality of the limb. Cold water was freely applied to the whole arm; he was put on light diet, with an occasional dose of epsom salts. I removed and re-adjusted the bandage daily, to satisfy myself that the limb was receiving no injury from it. In ten or twelve days the wound was healed. On removing the bandage the circulation was found to be carried on through the wounded vessel near the wrist as freely as before the wound was received. I could not satisfy myself that the canal of the vessel was not oblitered at the wounded point, from the depth with which it was covered by the integuments; but I am of the opinion it was not.

Case 2.—A young man passed a sharp pointed narrow knife under the tendon of the extensor muscle of the thumb, entering at the point where the radical artery passes under that tendon, wounding that vessel and passing out at the opposite side of the wrist. A compress was applied along the course of the wound, another on the vessel above the wound, a bandage was firmly applied to the hand and fore-arm, and the patient was left with instruction to let me know if the

bandage produced much pain. His hand becoming painful in the night, he had the bandage taken off and applied loosely. I heard nothing more from him for four or five days, when he came to me to examine his hand. On taking off the bandage, which was quite loose, I found the wounds in the skin healed, and a strongly pulsating tumor along the whole course of the wound. The compresses and bandage were again applied as at first. The bandage was now permitted to remain as I applied it, and in three weeks all traces of aneurism had disappeared, and the hand was soon restored to its original condition.

ART. V.—*Notes of a Singular case of fatal Abdominal Disease.* By Dr. J. J. POLK, of Perryville, Ky.

(The following clinical narrative was sometime since handed to us, by one of our newspaper editors, to whom it had been sent for publication in his paper. It is much to be regretted that a *post-mortem* examination had not been made.—*Eds.*)

T. Durham, aged 65 years, from his childhood enjoyed good health, with the exception of a few slight attacks of fever, their peculiar type being unknown. His occupation was generally that of a farmer; his frame large and robust. He complained occasionally, however, of pain in the region of the liver, which was from time to time treated by his medical advisers as a disease of that organ. In the month of October, 1839, he went, in company with two friends on a hunting excursion; and while enduring the fatigues of his favorite amusement, was seized with an acute pain in the right hypochondriac region. On his return home, he was bled to 16 ℥. which gave considerable relief; the pain, however, soon returned and medical aid was again called in. The disease was pronounced Hepatitis, and treated, by two physicians, with mercurial purges and a large blister over the part affected.

This only seemed to aggravate the symptoms, and a third medical adviser was called for, who supported the opinions of the two gentlemen in attendance; and a further attempt was made to reduce the supposed chronic enlargement of the viscus, by the remedies usually resorted to in such cases. The enlargement, however, went on at such an astonishing rate, as to induce the patient himself to doubt the correctness of the opinions of the gentlemen in attendance. The swelling, at this period occupying the whole of the space, between the cartilages of the false ribs and the crest of the ilium, and reaching below the umbilicus and far into the left hypochondriac region. His attendants, now believing that suppuration was taking place, applied emollient poultices for several days, the pain all the while being intense, with a constant cramp. In this critical state of things a fourth medical adviser was called in, who gave the opinion that it was not a disease of the liver; but an abscess, or a secreting sack, distinct from that organ, and advised an operation to evacuate its contents. The medical gentlemen, now augmented to five in number, met in consultation, and after examination, and a conference of several hours, in which many conflicting views and opinions were expressed, a vote of three to two decided to defer the operation and institute an active course of purgation. After two days, however, the sufferings of the patient became so great, that he demanded an operation, which was performed, with a common trocar. Being introduced about two and a half inches to the right of the umbilicus, there issued from the orifice sixteen pints of a dark grumous fluid, which deposited no sediment on standing, and was about the consistence of New Orleans molasses. Its properties were not tested. The patient's sufferings were gone with the evacuation of the sack, and his general health began to improve; but in two weeks it became necessary to repeat the operation, and it continued to be repeated at shorter and shorter periods to the eleventh operation; the last of which were performed with the common abscess lancet, and the aperture left open for the purpose of drawing off the accumulating fluid at pleas-

ure. After one of the operations, a leaden canula was left in the orifice, under which, however, there was a constant disposition to cough. The pulse became accellerated, and the patient seemed to sink rapidly. The sack was now injected with common tea, without any good effect. Subsequently, injections of weak ley were used, and lastly of tincture of Myrrh, which seemed, in a slight degree, to change the activity of the secreting surface. After the first operation the fluid drawn was frequently tested, and found to be composed principally of albumen and water. For more than three months the sac was evacuated twice in twenty-four hours, and finally three times every twenty-four hours. Frequently, when the sack was distended, there was an œdemetous state of his legs, particularly the right. His appetite was generally good, and his tongue natural, except some fissures on the middle portion. His bowels were always obedient to active cathartic medicines. Towards the close, his lungs became deeply affected, and a quantity of pus was expectorated. He seemed to sink under the combined influence of a pulmonary disease, and a severe strangury which at length supervened. During the six months that elapsed from the time of the first operation, five hundred pints, or about sixty-two gallons of the fluid described above, with occasionally a small quantity of pus, was abstracted. No *post-mortem* inspection was made.

REVIEWS.

ART. I.—*Brief Sketch of the Life and Services of John Hunter:* Condensed from his Biography by Drewry Ottley. London.

The lives of eminent Medical men constitute important epochs in the history of Medicine. The physician possessed of a proper degree of professional pride should not be ignorant of Medical biography, for although it may be admitted that, in a practical point of view, such knowledge is of secondary importance, yet we regard it essential to an accomplished Medical education.

That it is a neglected branch cannot be denied. Every practitioner of medicine has doubtless heard of Hippocrates, Galen, Sydenham, Cullen, or Rush; but how many can give any thing approaching an accurate account of their lives and services? Alas! Not one in fifty.

This ignorance, we think, is inexcusable. The literature of our profession is a deeply interesting and useful study, and we know that it is easy of acquisition. Further, we cannot doubt that a more extended acquaintance with Medical literature would serve to improve the profession both in a social and scientific aspect. One of the greatest hindrances to the elevation of our character as a body, is that sectional prejudice, which we regret to say, too often developes itself in the deportment and writings of the leading members of the pro-

fession. This is decidedly injurious. One common interest should bind us together, be we residents of Maine or Louisiana, London, Paris, or Calcutta; and among the means calculated to preserve our unity, that of which we are speaking stands pre-eminent.

We propose giving a brief account of the life and services of one of the most distinguished medical philosophers of modern times, and we shall be gratified if our effort shall incite any one to a more thorough inquiry.

John Hunter was born at Long Calderwood, a short distance from Glasgow, on the 14th of February, 1728. At the age of ten he lost his father, and having a very indulgent mother, was permitted to engage, without restraint, in all the frivolities of boyhood. His early education was neglected. Indeed it seems that Hunter, in his younger days, had little or no inclination to confine his attention to books. He was fond of sporting in all its varieties, and of anything in which he could display manual dexterity. It was a source of great regret to Mr. Hunter in his after life, as well as to his many friends, that he had neglected instruction in his tender years; and it is certain, that nothing but the force of insuppressible genius aided by a lofty and an honorable ambition, could have sustained him under the many difficulties which he necessarily encountered.

At the age of twenty he left his native place and repaired to London, where he put himself under the care of his brother, Dr. William Hunter, whose well earned fame was spreading far and wide, and whose high standing seemed to give a new and vigorous impulse to the mind of John.

After entering upon his duties as a pupil, "no long time elapsed before his skill was put to the test in preparing for the lecture a dissection of the muscles of the arm. It is probable that William Hunter had not as yet formed a very high estimate of his hitherto idle brother, and little foresaw that he was ere long to eclipse his preceptor. He was, however, so well pleased with his pupil's first essay that he soon after intrusted him with a similar part, of which the bloodvessels

were injected. In this the young student again succeeded so well as to obtain much praise for his dexterity from his brother, who foretold that he would soon become a good anatomist, and promised that he should never want employment. From this time, therefore, we may consider Hunter as engaged in the dissecting room, under the instruction of his brother's assistant, Mr. Symonds, where he pursued his studies with such zeal and diligence, that by the next session he was able to take charge of directing the pupils in their dissections."

About eight months after his arrival in London, by the exertion of his brother William, he gained admittance as a pupil at the Chelsea Hospital, under the celebrated Cheselden, who at that time was perhaps the first surgeon in the world. Here he attended during the summer months of 1749–50, while his winters were occupied in dissecting for his brother. In 1751 Cheselden resigned his office in consequence of bad health, and Hunter entered at St. Bartholomews under the direction of the distinguished Pott. Here he remained but a short time, but was regular in his attendance, and doubtless imbibed many useful principles from his great instructor.

At the death of Cheselden, in 1752, Pott soon placed himself at the head of the Surgical profession in Great Britain. He was the first surgeon in the United Kingdom who renounced the old absurdities of the art, and based his practice upon anatomical facts and physiological principles. But his student was destined to eclipse him, as will appear in the sequel.

In 1754, Hunter, having determined to devote himself to surgery, entered as surgeon's pupil at St. George's Hospital, where he attended regularly in the summer, while, as usual, he devoted himself closely during the winter months to his dissections. Two years after his entrance here, he served in the capacity of House surgeon, to the entire satisfaction of the attending surgeons, and to his own great advantage. "Hunter's extensive acquaintance with anatomy was now generally known and appreciated, and he was not unfrequently applied to by others to assist them in clearing up some

difficulties they might encounter in their researches. It was on an occasion of this kind, and about this time, that the important discovery of the mode of connexion between the placenta and the uterus was made. The honor of solving this anatomical problem was laid claim to by each of the Hunters, and the dispute to which it gave rise, twenty years afterwards, caused a breach between them that was never healed until William was on his death bed, and scarcely it would seem in his mind even then."

Hunter in this year became connected with his brother in his anatomical school, and delivered a part of the lectures. As a dissector, he was, without dispute, superior to his brother, but as a lecturer William was infinitely superior to John. In truth John Hunter never became popular as a lecturer. His style was course, and his manner uncouth; and it is a remarkable fact that, notwithstanding the eminence to which he attained in his profession, he never attracted a large audience to his lecture room. Among his earliest contributions to anatomy and physiology, were dissections, observations and experiments, illustrating the office of the lymphatics—the descent of the testis in the fœtus, and the ramification of the olfactory nerves upon the lining membrane of the nose. These, together with a great number of beautiful anatomical specimens, were made between the years 1754–59, after which, his health becoming impaired, he applied for an appointment in the army, and was accordingly made Staff surgeon.

"Notwithstanding his constant employment in the practical duties of his profession whilst in the army, Hunter found time to pursue those physiological researches in which he took supreme delight. He made several experiments on lizards and snakes to ascertain whether digestion continues during their torpid state; and he was also engaged in some inquiries on the faculty of hearing in fishes. It was during these campaigns too, that most of his observations on gun shot wounds were made, and that many of the peculiar views which his work on inflammation unfolds, first suggested themselves to his mind, though they were not published until more than

thirty years afterwards, as he constantly aimed, during his whole life, to confirm and amend them, and to build them up into a work on which his future fame should depend."

"In 1763, peace having been proclaimed, Hunter accompanied the forces home, and on arriving in England returned to the metropolis."

We come now to an important era in the life of this distinguished man—a period when his talents and fortitude were called in daily exercise in order to sustain him under many trying difficulties. Many circumstances conspired to render it necessary for him to undergo a tedious probation. His income was narrow, and he was obliged to live in rather a retired manner. A number of able surgeons already occupied the field, among whom were Pott, Bromfield, Sir Cæsar Hawkins, Sharp and Warner. Hunter's manners were any thing but prepossessing; in truth, he was rude, undignified, and what was still worse, addicted to profanity. Add to these his deficient elementary education, and we may readily conjecture what was the fact—his slow progress to celebrity. But he was unceasing in his devotions to his favorite pursuits. He was not content with resting upon the knowledge of the anatomists and surgeons who preceded him. His restless spirit and searching intellect sought for a better exposition of the curious operations of the animal fabric than had ever been given. Accordingly we find him engaged in the study of comparative anatomy and physiology, morbid anatomy and surgery.

Shortly after his location in London, he commenced delivering lectures on surgery and anatomy, which he continued for several years. It is remarkable, however, that his auditors never amounted to twenty. But he was not to be discouraged at the sight of empty benches. His zeal increased with obstacles. The charnel house was his home. He cared not for lecture room eloquence, or for elegant acquirements of any kind whatever. He had projected a most magnificent scheme, and he was resolved to devote himself unremittingly to its consummation. This scheme was no other than the

formation of the vast museum which now bears his name, and which, without dispute, is superior to any collection of the kind in the world. His time and money were completely invested in the enterprize. It was the darling object of his head and heart, and the records of science no where exhibit such an instance of enthusiasm as was displayed in the prosecution of this gigantic work. "Sir Everard Home used to state, that as soon as he accumulated fees to the amount of ten guineas, he always purchased some addition to his collection. Indeed he was not unfrequently obliged to borrow of his friends when his own funds were at a low ebb and the temptation was strong. "Pray George," said he one day to Mr. G. Nicol, "have you got any money in your pocket?" Mr. N. replied in the affirmative. "Have you got five guineas? because if you have and will lend it to me, you shall go halves." "Halves in what?" inquired his friend. "Why halves in a magnificent tiger which is now dying in Castle street." Mr. Nicol lent the money and Hunter got the tiger."

In addition to his labors in Zoology, Hunter was sedulously engaged in surgical and pathological researches, and without detriment to other men, we may truly affirm that he is to be regarded as the father of modern surgery. All who are acquainted with his work on the blood, and his views upon inflammation, will at once see the justice of this remark.

In 1767 he was elected a fellow of the Royal Society. In the same year he ruptured his tendo-achillis, and the circumstance afforded him an opportunity for investigating the manner in which divided tendons unite. He cut the same tendon in dogs, and found that union took place as in fractured bones where the skin is not wounded.*

In 1768, at the age of 40, he was elected surgeon of St. George's Hospital, and shortly afterwards he was chosen a member of the Corporation of Surgeons. "By his election to

*It is singular that Hunter should not have devised the operation of Tenotomy for Club-Foot and other distortions. He was certainly the first surgeon who fully demonstrated the fact, that divided tendons will reunite, (a point which had been long denied,) but it was not until seventeen years after Hunter's experiments that Tenotomy was undertaken.

the hospital he was ensured the means of making his talents as a surgeon more generally known, and was enabled to obtain as private pupils, on advantageous terms, young gentlemen coming to town to complete their medical education. * * * Amongst those who successively became inmates of Hunter's house, as private pupils, were Dr. Jenner, Mr. Guy, Mr. Kingston, Dr. Physick, and Sir Everard Home."

In May, 1771, he published the first part of his work on the Teeth, containing a description of those organs in their natural state, and in 177– he published the second part, giving an account of their diseases. In this year ('71) he was married to Miss Home, Sir Everard's sister, to whom he had been engaged a number of years, and with her he lived pleasantly until his death notwithstanding their habits were somewhat uncongenial.

In 1772, five years after his election as a fellow of the Royal Society, Hunter presented, for the first time, a paper before this body on the digestion of the stomach after death, which was published in the Philosophical Transactions. Shortly after this he presented another paper to the same body giving "an account of the electric organs of the Ray, and pointed out the vast nerves with which they are supplied, as the probable source of their peculiar power."

In the autumn of '72, he delivered a course of lectures on the principles of surgery. We have before observed that Hunter was a poor speaker. He had an aversion to public speaking, insomuch that he was in the habit of taking laudanum a short time before his lecture hour. "His language, though forcible, was inelegant and often coarse; his delivery was heavy and unengaging, as he rarely raised his eyes from his book; and as, in addition to this, the doctrines he taught were new and often obscure and theoretical, his hearers were never numerous."

As an instance of his coarseness, it is related by his biographer (Ottley,) that in speaking of a case of gun-shot wound, he described the ball as "having gone into the man's belly and hit his guts such a d—d thump that they mortified."

Hunter's philosophy, as exhibited in his lectures and papers for the Royal Society, was strictly Baconian. He paid little or no regard to mere opinions. He had little respect for speculations and theories no matter by whom projected. His book knowledge was limited. He observed closely, and drew all his inferences from visible, tangible facts. He never allowed himself to rest contented with a superficial examination of any subject. His productions always evinced depth and comprehension of research. Originality was displayed in every sentence he wrote, in every lecture he delivered.

"Hunter's increasing professional avocations began to render it impossible for him to devote as much time as he wished to extending and perfecting his collection. The field of his labors too was considerably increased on the one hand, by his opportunities for the cultivation of morbid anatomy, which his connexion with a hospital and his increasing private practice afforded him; on the other, by the augmented stores of rare and curious specimens of the animal kingdom which the kindness of his friends, and the liberality of scientific men, continually accumulated on his hands." He was, therefore, under the necessity of engaging a gentleman to assist him in his labors. Notwithstanding this he was incessantly devoted to his studies and dissections.

"He commenced his labors in the dissecting-room generally before six in the morning, and remained there until nine, when he breakfasted. After breakfast he saw patients at his own house until twelve, when he made it a point to set forth on his rounds, even though persons might be in waiting for the purpose of seeing him. He dined at four and was a very moderate eater. After dinner he was accustomed to sleep for about an hour, and his evenings were spent either in preparing or delivering lectures, in dictating to an amanuensis the records of particular cases of which he kept a regular entry, or in a similar manner committing to paper the substance of any work on which he chanced to be engaged." He continued his labors until one or two o'clock in the morning, long after his family had retired.

In the early part of '75, Hunter presented an able paper to the Royal Society, on animal and vegetable heat, demonstrating "that living bodies possess a power of maintaining their heat against the influence of external cold, and this in proportion to their rank in the scale of organization."

In 1776 he was appointed Surgeon Extraordinary to the King. In the same year, at the solicitation of the Humane Society, he prepared an essay on the means to be employed in the resuscitation of drowned persons.

"He also commenced this year a series of six Croonian lectures on muscular motion, which he had been appointed by the Royal Society to deliver."

About this time he commenced a correspondence with Jenner, who had been one of his favorite pupils. Jenner had settled at Berkley, where he made the splendid discovery which has conferred upon his name an enviable immortality. He took great delight in assisting his illustrious preceptor in the prosecution of his labors, in return for which, Hunter gave him his advice in relation to any difficult case on which he might be consulted.

The following letter will afford an example of Hunter's epistolary style of writing, as well as the blunt, coarse manner he had of delivering his opinions.

"Dear Jenner:—You must think me very fond of fish, when you send me cheese as much fishified as possible; however, it is an excellent cheese and every country has laid claim to its birth.

"I have but one order to send you, and that is, to send me every thing you can get, either animal, vegetable, or mineral, and the compound of the two, either animal or vegetable, mineralized.

"I would have you do nothing with the boy but dress him superficially; these funguses will die and be damned to them, and drop off.

"Have you large trees of different kinds that you can make free with? If you have, I will put you upon a set of experiments with regard to the heat of vegetables.

"Have you any eaves where bats go to at night? If you have, I will put you upon a set of experiments concerning the heat of them at different seasons. I should have been extremely happy to have had a visit from Lord Berkley.

"Ever Yours, JOHN HUNTER."

This correspondence with Jenner was continued until the close of the year 1790, shortly before Hunter's death. It related almost entirely to enquiries concerning the habits of a number of animals, such as the cuckoo, the bat, the hedgehog and the porpoise; and in ascertaining their instincts and customs Jenner was of great service to his old preceptor.

Perhaps the most interesting experiments in which Jenner took part, were those relating to animal heat. Hunter's several papers on this subject were very valuable. The following letter relative to this topic, evinces an ardent desire for accurate knowledge, together with a restless spirit, which could only be satisfied by the information afforded him by his friend and pupil.

"Dear Jenner:—* * * * I have received the hedgehogs. If you have time, see their natural winter haunts, and in very cold weather run the thermometer into the anus, and observe the heat; then open the belly by a small hole, and pass the thermometer down towards the pelvis, and observe the heat; then towards the liver and diaphragm and observe the heat: you may do all this in a very few minutes. Observe the fluidity of the blood, by comparing it with another that has been kept warm for a few days. * * * * * I have seen your old master who has given me the use of a very curious bone. I hope he will give it me altogether.

"Dear Jenner, yours,

"*Nov.* 23. JOHN HUNTER."

In 1779 Hunter presented his celebrated paper to the Royal Society, on the hermaphrodite of black cattle, or the free martin, containing not only a description of these singular an-

imals, but observations on hermaphroism in general. In the same year he presented two other papers; one containing an account of the transmission of small pox from a mother to her fœtus in utero; the other on a peculiarity of the hen pheasant, the change of her plumage to the color of the cocks after the cessation of breeding.

In 1781 he was elected a member of the Royal Society of Belles Lettres at Gottenburg.

"In 1782 he completed his series of six Croonian lectures on muscular motion, in which he unfolded many novel and ingenious views respecting the causes of motion in vegetables and animals, and on the various modes of progression employed by the latter in swimming, flying, leaping, running, &c."

In 1783 he was elected a member of the Royal Society of Medicine and the Royal Academy of Surgery of Paris. The same year he built his museum, which cost him about fifteen thousand dollars. This sum, however, is small in comparison to the cost of his specimens which at one time were estimated by Hunter himself at *three hundred and fifty thousand dollars!* During the same year he also assisted in forming the "*Society for the improvement of Medical and Chirurgical Knowledge*," which continued in existence about twenty years, and numbered among its members some of the brightest ornaments of the British profession. Before this society Mr. Hunter read a number of papers which were characterized by great research and originality of thought. Among others we may mention his "observations on the inflammation of the internal coats of veins;" his papers on "Introsusception," and on "Aneurism," and his "Experiments and Observations on the growth of Bones."

Hunter was the author of the operation for the cure of aneurism, which consists in tying the artery at a distance from the tumor, between it and the heart: and notwithstanding many efforts have been made to award the merit of this device to French surgeons, we believe it is now universally conceded that all the credit is justly due to Hunter.

"In 1786, in consequence of the death of Mr. Middleton, Hunter was appointed Deputy Surgeon General to the army. In the early part of the same year, he published his work on the *Venereal Disease*, which had been long expected by the public, and which met with a rapid sale. On this work Hunter had bestowed great pains, and before publication he submitted every part of it to a committee of his friends, consisting of Sir Gilbert Blane, Dr. Fordzee, Dr. David Pitcairn, and Dr. Marshall." This work of our distinguished surgeon is still held in high estimation, and with the annotations of George G. Babington, surgeon of St. George's Hospital, forms, perhaps, the best text-book on the subject at the present day.

"Towards the end of this year he published also his work on the Animal Economy, consisting chiefly of a collection of his most important papers in the Philosophical Transactions, to some of which he has made considerable additions.

In 1787 Hunter presented two papers to the Royal Society: one designed to prove that the wolf, jackal and dog, are animals of the same species; the other upon the anatomy and physiology of the whale, upon which he had spent much time and money.

The ardent desire of Hunter to obtain rare specimens was well exemplified at the time of Obrien's death. This famous Irish giant had been for a long time in a declining state of health, and Hunter sent his man, Houison, to watch for his exit and, if possible, obtain his body. Obrien heard of their manœuvering and left strict orders to have his body watched until a leaden coffin could be made, in which the corpse was to be enclosed, and the whole sunk in the sea. Accordingly upon his death watchers were set, but Hunter himself succeeded in bribing them by paying the sum of *five hundred pounds*. The skeleton of Obrien now stands at the head of the osteological division of the Hunterian Museum.

"The Royal Society this year ('87) conferred on Hunter the Copley medal, as an honorable testimony to the importance of his discoveries in Natural History. He also received, at the same time, another mark of the estimation in which

his labors were held by being elected a member of the American Philosophical Society.

Upon the death of Pott in December, 1788, Hunter was, by universal consent, placed at the head of the surgical profession in England. His health had been delicate for some four or five years. He suffered at times with a singular affection of the heart and arteries, attended with syncope and spasmodic twitchings of the muscles of the face, arms, chest, and stomach. This contributed to the aggravation of a naturally irritable temper, until at length it became so indomitable that, when under a paroxysm, he was utterly unfit for any social or professional duty.

"In 1792 Hunter contributed his last paper to the Philosophical Transactions. This contained the results of his observations on the hive bee, continued, with various interruptions, during a period of twenty years."

Shortly after this he transferred his lectureship to his brother-in-law, Sir Everard Home. To him also he committed his manuscripts which it appears were destroyed, and in all probability by the hand of this gentleman, who, doubtless, after committing extensive plagiarism upon the works of his great master and brother-in-law, endeavored to conceal his crime by demolishing the original. After this transfer, Hunter commenced the publication of his work on Inflammation and Gun Shot Wounds, which did not get through the press until after his death. Commendation of this work is unnecessary at this late day. The dissemination of the views contained therein created a new epoch in Surgery, and from that day to the present, this branch of our profession has made a steady and rapid advancement.

In the early part of '93 some difficulty occurred between Mr. Hunter and his colleagues of St. George's Hospital, respecting the fees of pupils and their admittance into the institution. On the 10th of October the board of Governors met to take the matter into consideration, when Hunter appeared before them laboring under great mental agitation. "In the course of his remarks he made some observations which one of his

colleagues thought it necessary instantly and flatly to contradict. Hunter immediately ceased speaking, retired from the table, and struggling to suppress the tumult of his passion, hurried instantly to the adjoining room, which he had scarcely reached, when, with a deep groan, he fell lifeless into the arms of Dr. Robertson, one of the physicians of the hospital who chanced to be present." This put an end to the meeting, the board immediately passing a resolution to defer the matter for future consideration.

"The body was examined after death, when the viscera of the belly and head were found loaded with blood, but otherwise in a natural state, with the exception of the carotid arteries and their branches within the skull, which were in parts thickened and ossified. In the chest the left lung had become attached to the costal pleura by old and firm adhesions; but the heart was found to be the chief seat of disease. The pericardium was unusually thickened, but did not contain much fluid. The heart itself was small, appearing too little for the cavity in which it was contained; its diminished size being the result of wasting, and not of strong contraction of its fibres. Two opake white spots were seen on the left auricle and ventricle. The muscular structure of the organ was pale and loose in its texture. The coronary arteries had their branches, which ramify through the heart, converted into long tubes, with difficulty divisible by the knife. The mitral valves were much ossified. The aorta was somewhat dilated, its valves thickened and wanting pliancy, and the inner surface of the artery was studded with opake and elevated white spots.

"Hunter's body was interred in a private manner, in the church of St. Martin-in-the-Fields, accompanied by a few of his medical friends." He died in his sixty-fifth year.

"In person he was about the middle stature, of a vigorous and robust frame, and free from corpulency; his shoulders were high and his neck short. His features were rather large and strongly marked, his eyebrows projecting, his eye of a light color, his cheeks high, and his mouth somewhat under-

hung. In dress he was plain and gentlemanlike; and his hair, which in youth was of a reddish color, and in his latter years white, he wore curled behind."

In his will Hunter expressed a desire that his Museum should be offered first to the British government, and in case they should refuse to purchase it, he directed it to be sold to a foreign state, as his executors might deem advisable.

After several ineffectual attempts by a number of influential persons to lay the subject before Parliament, it was at length brought before that body in June, 1796, when they agreed to appropriate 15,000*l* for its purchase; a paltry sum indeed for such a magnificent collection. The whole was then offered to the College of Physicians, but they declined accepting it, and it was then accepted by the Corporation of Surgeons on very favorable terms.

This museum contained, at the death of Hunter, some 15,000 specimens in anatomy, human, comparative, and morbid; arranged in excellent order, so as to illustrate the science of life, and the body in a state of disease. It has been considerably increased since it passed into the hands of the College of Surgeons, and it will stand in the metropolis of England a monument of the mighty genius and industry of its illusirious founder. W. J. B.

Cincinnati, 1841.

BIBLIOGRAPHICAL NOTICES.

I. *Transactions of the Medical Society of the State of New York.* Vol. v.

To express our opinion of the present number of these Transactions, it is perhaps compliment enough to say, that it is not less replete in valuable matter than any which have preceded it. The leading article is the "Annual Address," on In-

flammatory Fever, by Sumner Ely, M. D., President of the Society. There is besides, a paper on the Nervous System, by Dr. Davis; one on Ergot, by Dr. J. B. Beck: one on Aneurism, by Professor Portal, of the Royal University of Palermo; and one on Hereditary Diseases, by Dr. Haynes. There is also an appendix, containing an abstract of the proceedings of the Society at its annual session, which was held in February, 1841; a list of officers of county societies; several legislative documents; and the regulation of Medical fees, by the Superintendents of the poor.

Our limits will not permit any thing like an opinion of each individual paper above enumerated; and of Dr. Beck's observations on the use and abuse of Ergot, which we have transferred to our columns, we need hardly add that we think we cannot better subserve the interests of the profession in the West than by laying it before them.

II. *Twenty-fourth Annual Report of the state of the Insane Asylum at Frankfort, near Philadelphia.*

We received sometime since this report, but, by an accident, it was lost before we had the pleasure of reading it. We will add, however, that we have seen very favorable notices of it in several of our exchange journals. Dr. Earle, the resident Physician, has rendered himself very favorably known to the profession, by his labors for relieving and mitigating the condition of the Insane.

Selections from American and Foreign Journals.

Observations on Ergot: By JOHN B. BECK, M. D., Professor of Materia Medica and Medical Jurisprudence in the College of Physicians and Surgeons of New-York.

In the whole range of the materia medica there is no article more interesting in its effects on the human system than ergot. Given during labor, it possesses the curious property (possessed by no other substance that we know of,) of exciting uterine action, and facilitating in a most extraordinary manner, the whole process of delivery. Upwards of thirty years have now elapsed since its introduction into general practice in this country; and during portions of the same period, it has been extensively used in Great Britain and on the continent of Europe. After such ample experience, we should naturally suppose that every thing in relation to its action would be completely established. Such, however, is not the case. Several important points are still under dispute, and it is upon these that it is proposed to make a few observations in the following paper.

I. By some it is *denied that ergot possesses any such property as is generally ascribed to it.* On this point it would seem hardly necessary to say any thing. Whether ergot does or does not possess such property, is a question which must be decided by the observations and testimony of those who have used it, and the mass of recorded as well as unrecorded evidence which we possess on this subject, is so abundant, as one would suppose, would be sufficient to preclude all doubt.*

*Bayle has collated the reports of sixty-two authorities on the subject of ergot, and out of 1176 cases of lingering labor in which it was used, 1051 were more or less promptly terminated by it. In 111 cases, it failed to produce any effect, and in 14 the success was moderate.—*Bibliotheque Therapeutique, &c., par A. L. I. Bayle tome* iii, *p.* 534.

In addition to the foregoing mass of authority, I will only adduce the testimony of Dr. Ward of New-Jersey, who states that during six years he gave it to between sixty and seventy patients, and in every case, except one, it produced powerful uterine contractions in fifteen or twenty minutes after its administration.—*New-York Med. and Phys. Journal for* 1825, *vol.* iv, *p.* 212.

Notwithstanding all this, it is maintained by some high authorities that ergot does not act upon the uterus, and in support of this opinion it is alleged that it has been frequently given without any such effect having followed, and when it has taken place, it is explained upon the ground of its being a mere accidental coincidence, and that the uterine efforts would have been renewed just as certainly without its agency. Now that ergot has frequently been given without producing any effect on the uterus is readily admitted, and yet this by no means proves that it is destitute of the power ascribed to it. Some constitutions are doubtless not susceptible to its action. This we know to be the case with many agents, whose action on the human system is universally acknowledged. Besides, much of the alleged inefficacy of ergot may very readily be explained by the fact, now well known, that this article is not always precisely the same. From a variety of causes influencing the growth of this curious substance, independently of designed sophistications, it has been established that its properties differ very materially, and if these be not duly regarded, it is by no means wonderful that its use is frequently not followed by any effect. With regard to the supposition that the uterine action which follows its exhibition is a mere coincidence, it seems to me to be entirely done away with by the fact that the pains which are produced are entirely different in their character from those of ordinary labor. The latter are distinguished by perfect intermissions; while the former, are not only more severe, but they are continuous until the labor is completed. Females themselves are perfectly conscious of this difference in the two kinds of pain, and by them this difference has been frequently described. Besides this, the uniformity and rapidity with which the pains come on after the exhibition of ergot, is altogether irreconcilable with the supposition of its being a mere coincidence. If the pains came on at remote and variable periods, then indeed might there be some ground for denying the agency of ergot in producing them. This, however, is not the case. As a general rule in from five to twenty minutes, severe and forcing pains come on,* and after continuing for an hour or more, if the de-

*By Dr. Prescott the time was precisely marked in twenty cases. "In two of these, the increased strength of the pains and the continued action commenced in seven minutes from the time the decoction was taken; in one case, it was eight minutes; in seven, it was ten; in three, eleven; and in three others, it was fifteen minutes; in the four remaining cases there was no apparent operation until twenty minutes had expired."—*A Dissertation on Ergot, by Oliver Prescott, A. M., p. 11, Boston, 1813.*

Dr. Ward, as already quoted, states that he used it in sixty or seventy

livery be not completed, the same effects may be reproduced by a repetition of the dose. Now, if all this does not prove that the ergot is the cause of the uterine action, I am at a loss to conceive what kind of evidence will establish the action of any medicinal agent on the human system. If we still doubt in relation to ergot, we may with equal propriety doubt concerning the operation of ipecacuanha on the stomach, or of calomel on the liver. Although there can therefore be no reasonable question about the operation of ergot, yet it is certain that it sometimes fails. This is a fact which has been frequently noticed by those who have prescribed it. Professor Dewees states that he has "in several instances failed to produce the slightest effect with the ergot procured at one shop, whilst that from another, in the same patient, has been as prompt as it was efficacious."* The same thing has been observed by others. In a large majority of cases this can easily be accounted for. The character of this article is modified by a number of circumstances, all of which should be attended to if we wish to have it genuine. As these are important in a practical point of view, they are deserving of the greatest attention.

In the first place, the character of the season, as to dryness or moisture, appears to influence very materially the quality of the ergot. According to Burnett, it has been ascertained that the principle of the ergot resides in the diffluent peridium or external covering. Now if heavy rains fall at the time when the peridium is soft and moist, it will be washed away and the hardened nucleus, if wholly denuded, will be utterly inert. If the weather be fine during the season of maturation of the fungus, the diffluent peridium will be dried upon the spur, and the ergot be in its most active state. Hence it is, that although moisture favors the early growth of the ergot in the spring and summer, it requires a dry autumn to ensure its activity.†

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cases, and in all excepting one case, it produced "powerful uterine contraction in fifteen or twenty minutes after its administration."—*N. York Med. and Phys. Journal, vol.* ii *p.* 212.

Mr. John Paterson of Aberdeen, states that he used it in eight cases, and it acted strongly in all in less than five minutes after it was administered.—*Edin. Med. and Surg. Journal for Jan.* 1840, *p*, 142.

*American Journal of Medical Sciences, vol. i, p. 255.

†Outlines of Botany, by Gilbert Burnett, Prof. of Botany in King's College, London, p. 207. Upon the same principle he explains the fact, that the grain in which the spur prevails in equal proportions, will in some years produce the dry gangrene, while in others it will not.

In the second place, the period when it is gathered has an influence on the character of the ergot. According to the experiments of Dr. Kluge of Mendelurtz, it would seem that it only displays its active properties, when collected before the cutting of the parent crop. At the Maternite of Mendelurtz, trials were made upon fifteen females, and the result was, that what was gathered before harvest was very energetic, while that collected after harvest was altogether powerless.* Whether this be true in its full extent or not, certain it is that there is a great difference in the strength of the article, according to the time when it is gathered. A recent writer, Dr. Green, who states that he used it in nearly one hundred cases, says that when gathered from the standing grain, and about the period when it is ripe for the harvest, he has found it not only more certain in its action, but "in doses of eight or ten grains, to prove as efficient in increasing the uterine powers, as the scruple or half drachm doses of the ones obtained in the ordinary way."†

In the third place, the time it has been kept modifies the quality of the ergot. Although some experiments of Lorinser would seem to show that so far as its action on the stomach is concerned, it retains its active properties for two years,‡ yet the result of general observation has shown that its influence over the uterus is impaired if it be kept over the year in which it is collected. Like all other vegetables too, it is easily acted on by heat and moisture. To have it good, therefore, it should be fresh; and it ought to be kept in bottles tightly stopped, and it should not be pulverized until required for use.

In the fourth place, a fictitious ergot has sometimes been sold for the real article. In this country and on the continent of Europe, where rye is extensively cultivated, and where of course there is an abundance of ergot, this is a fraud which is not likely to be met with. In England, however, where much less rye is grown, the ergot is occasionally very scarce, and this has led to a variety of impositions. Dr. O'Shaughnessy of London states, that a specimen of suspected ergot was once given to him for analysis, and he found it to be composed of the sulphate of lime, which had been cast in a mould and colored, so as to imitate very closely the natural ergot.§ Mr. Wright says he has several times observed the

*American Journal of Medical Sciences, vol. xii. p. 515.
†New-York Journal of Medicine and Surgery, for Jan. 1841. p. 23.
‡Edin. Med. and Surg. Journal for 1826, p. 453.
§Lancet for 1830–31, vol. i. p. 638.

ergot to be adulterated with common paste; "a fraud," he suspects, "of very frequent occurrence, though not of very easy detection; for the process of baking generally modifies the starch, so that it can scarcely be indicated by iodine."*

The foregoing causes appear to me abundantly sufficient to account for the discrepancies in the statements which have appeared in relation to the action of this singular substance, as well as for the occasional failure which attends its use.

II. *Acting thus powerfully on the uterus, does ergot produce any effect upon the child?* This is a question of great interest, and one which involves consequences of great importance, not merely in a professional, but in a moral point of view. On this subject, the opinion of the profession is divided. While some maintain that it produces no effect, at least no injurious effect upon the child; others contend that it frequently proves destructive of life, and that the general use of it is one of the causes of the great increase in the number of still-born children. An attentive examination of the subject, in all its bearings, will, I fear, but too certainly lead to a conclusion in favor of the latter opinion. From the peculiar effect of the ergot upon the uterus, it is evident that the child must sustain a degree of pressure entirely different from what it does in ordinary labor. In the first place, it is much greater. In the second place, it is unremitting and continued, and that too for a considerable length of time. Now, it is by no means unreasonable to suppose that this pressure may frequently prove injurious and even fatal to the child. This would be more especially likely to happen in cases where the waters are discharged early, and where the uterus is contracting directly upon the child. In natural labor, the child has time to recover from the effects of pressure during the intervals between the pains, while here no such chance is afforded. And it is not irrational to suppose that the design in making the pains of labor intermitting, was not merely to allow the mother time to recover her strength, but also to enable the child to recover from the effects of pressure. That continued pressure may and does prove injurious to the child even in cases of ordinary labor, where this process is protracted, either from the disproportionate size of the child, or from the resistance of the parts through which it is to pass, is a fact well known. How much more likely is this to happen where an unnatural and unremitting pressure is kept up, as is the case under the influence of ergot? From these general considerations it would seem not merely perfectly natural but unavoidable that in

*Edinburgh Med. and Surg. Journal, Oct. 1839, p. 297.

many cases, the child must suffer from the use of ergot. After all, however, this is a question which must be decided by facts, and these will tend still further to countenance this opinion. So early as the year 1812, it was suggested by the editors of the New-England Journal of Medicine and Surgery, that while fully convinced of the parturient powers of the ergot, they were apprehensive that an evil of great magnitude not unfrequently resulted from its use; and that was the death of the child. They stated that they had been led to this apprehension from "observing that in a large proportion of cases where the ergot was employed, the children did not respire for an unusual length of time after the birth, and in several cases the children were irrecoverably dead."* Since then a large amount of testimony has been furnished confirmatory of the truth of this suggestion. In the same Journal,† a case is recorded of a female in her third labor, who was delivered of twins. After the first child was born, which was living, an hour elapsed without the recurrence of a single pain, in consequence of which it was determined to administer the ergot. Fifteen grains in powder were accordingly given in a little water. In fifteen or twenty minutes the pains came on and continued without remission till the child was born, which was in about twenty minutes from the time the pains commenced, the head being born first as in natural labor. The child, however, was still-born, and every effort to resuscitate it failed. It was in every respect as fine a child as the first, perfectly fresh and firm. The writer remarks that "every one who is acquainted with the facility with which, in a case of twins, the second child makes its way into the world, will consider the death of the child in this instance as an unusual occurrence."

Dr. Ward of New-Jersey, whose experience with this article appears to have been extensive, and who speaks of it as a valuable agent in many cases, nevertheless admits the danger which attends the child from its use. "In all the cases," he says, "in which I have given it, unless the child was expelled very soon after the powerful contractions came on, it suffered very much, and would lie for some time without breathing." Again he says, "from my own observations, with regard to the ergot, as well as from other correct sources of information, I am led to conclude that in most cases, after giving it, unless the child is expelled in forty minutes after the powerful contractions come on, it will be born dead."‡

*Vol. i, p. 70.
†Vol. ii, p. 353.
‡New-York Med. and Phys. Journal, vol. iv, p. 212.

The late Dr. William Moore, a veteran practitioner of obstetrics in this city, after detailing some cases, gives his opinion in relation to ergot in the following terms: "It appears to be injurious to the child at all times; for in every case in which I have seen it exhibited, the child has been still-born and in the greater part of them it was not possible to restore it to life.*

Dr. Hosack states that he gave the ergot in three cases, and "although no evidence existed previous to the use of the medicine, that the fœtus was not living, in every case in which it was administered, the child was still-born."†

Dr. Chatard, of Baltimore, made two reports in relation to the effects of ergot. In the first, out of twelve cases in which it was given, six of the children were still-born.‡ In a second report, out of twenty-five cases, eight were still-born, two of whom were however resuscitated.§

Dr. Holcombe, of New-Jersey, says, "more children, I am satisfied from what I have seen and heard, have already perished by the injudicious use of ergot, during the few years which have followed its introduction into the practice of this country, than have been sacrificed by the unwarrantable use of the crotchet for a century past."‖

Dr. Church, in seven cases, which he details, in which the ergot was used, had five children still-born. Although he thinks that in these cases the ergot had nothing to do with this result, yet he confesses that he "has no doubt if given in cases where there is great rigidity of muscular fibre, before the labor is advanced, when the os uteri is undilated, the external parts unrelaxed, and when blood-letting has not been premised, that the powerful and continued efforts of the uterus, caused by the ergot, will prevent the retreat of the child's head after it has advanced within the bones, and that the unceasing pressure may in some instances occasion death."**

Dr. Davies, of London, reports ten cases in which the ergot was used. In four, the child was still-born. In a fifth, the child was apparently still-born, but soon recovered. In all the still-born cases, it appears that the child was not delivered until upwards of an hour had elapsed after the administration

*Compendium of Midwifery, by Samuel Bard, M. D., p. 214, 4th ed.
†New-York Med. and Surg. Journal, vol. i. p. 265.
‡New-York medical Repository, vol. xx. p. 17.
§Ibid, vol. xxi. p. 160.
‖Philadelphia Journal of the Med. and Phys. Sciences, vol. xi. p. 318.
**Philadelphia Journal of Med. and Phys. Sciences, vol. viii. p. 139.

of the ergot. In the first, two hours elapsed; in the second, a little more than an hour; in the third, six hours; in the fourth, a little over an hour.*

Mr. T. Chavasse, of Birmingham, states that in eighteen cases in which the ergot was used, the children were still-born.†

Mr. Jukes, of Birmingham, says that out of six cases in which he used it, five of the children were still-born.‡

Mr. P. H. Chavasse reports nine cases in which its use was followed by the birth of still-born children, and in all before he administered the ergot, "there was every indication of the children being alive."§

Mr. Elkington says that "several of his patients who took it, had still-born children."‖

Mr. John Paterson, of Aberdeen, used the ergot in eight cases, and in three, the children were still-born—"than which," he says, "no stronger evidence need be adduced of its extreme danger." In the three cases alluded to, he states, that he satisfied himself before its administration that the children were not only alive, but apparently strong and healthy; but as soon as the action of the medicine commenced, these impressions became gradually less sensible to himself as well as the mother. And he adds his doubts whether by the use of this article more deaths are not occasioned than by the use of instruments.**

In addition to the foregoing, I adduce the following communication from one of my professional friends in this city, whose long experience entitles his opinions in relation to practical matters, to the highest consideration.

New-York, January 14th, 1841.

My dear sir:

After what I considered a fair and full trial, I formed an opinion on the use of ergot, twenty-five years ago, and one which has governed me in practice ever since. I consider it a valuable article of the materia medica, to be used with great caution and only in cases of clear necessity. I have reasons satisfactory to my own mind for believing that it has frequently destroyed fœtuses and produced sterility in mothers. Entertaining this opinion I am surprised to see by some late publications that this article continues to be resorted to by some

*New-England Journal of Med. and Surgery, vol. xv. p. 18.

†Transactions of the Provincial Med. and Surg. Association, vol. iv. copied into the Transactions of the N. Y. State Med. Society, vol. iii. p. 353.

‡Ibid, vol. iii. p. 354. §Ibid, vol. iii. p. 355. ‖Ibid, vol. iii. p. 354.

**Edinb. Med. and Surg. Journal for January 1840, p. 142.

practitioners under very trivial pretexts. I mean on occasions where, to say the least, it is totally unnecessary. It hastens labor, it is true, but I entertain so high a respect for the intelligence of nature, that I consider this hazardous method of bringing a child *into* the world before its time, as little better than sending it *out* before its time.

Yours truly,

CYRUS PERKINS.

Prof. J. B. Beck.

The facts which have thus been detailed, would seem to be abundant to show that the use of this article has in many cases proved injurious to the child. That it does not prove so in all cases, and that in the hands of those who have used it prudently and judiciously it has never produced such an effect, is certainly no argument against the correctness of this conclusion. Even by those who have most frequently observed its fatal effects upon the child, it is admitted that this does not uniformly take place. The circumstances under which this difference of effect occurs, are easily explicable. As the danger to the child appears to be owing to the degree and duration of the pressure to which it is subjected, it would seem evident that just in proportion as the uterine organs are in a condition to admit of a speedy delivery after the ergot begins to operate, will the danger of the child be lessened; and on the other hand, in proportion as the delivery is protracted will the danger be increased. This corresponds with the observation of Dr. Ward, already quoted, that whenever the child is not delivered in forty minutes after the action of the ergot commenced, it is generally still-born. For the same reason too it has been found more injurious when used in first labors than in subsequent ones.

III. *Is ergot capable of producing any effect on the uterus anterior to the full term of gestation?* On this point there is also a great difference of opinion. Some contending that it acts only at the full period and when the process of labor has already commenced; while others assert that it exerts its influence at any period of pregnancy. To settle this question a great number of experiments have been made upon animals, the result of which is, that while in the majority it produced no effect, yet in a number it succeeded.

By Dr. Erskine, several experiments were made upon cats, at various periods of Pregnancy, and in every instance it is stated that he succeeded in producing abortion.*

*Philadelphia Journal of Med. and Phys. Sciences, vol. xi. p. 112.

By Dr. Oslere, experiments were also made upon animals, and with similar results. The first was on a sow, who was supposed to be in her seventh week of pregnancy. One drachm of the ergot was given and repeated again in the course of three hours. In the course of the night she had aborted nine small pigs, about the size of common mice. His second experiment was upon a cow, which was supposed to be with calf, though not sufficiently advanced to be certain of the fact. Two ounces of ergot in powder were given about ten o'clock in the morning, and after suffering severe pain she aborted at six o'clock in the evening of the same day. The abortion was about the size of a common full grown rat, but very imperfectly formed. His third experiment was on a cat that appeared to be near her time of delivery. Sixteeen grains of ergot in powder, mixed with butter, were given at eight o'clock in the evening, and the animal confined in a room. On visiting her the next morning, she was found to have been delivered of four kittens, all of which died during the day.*

Dr. Oslere states as the result of his experiments, that he has not the least hesitation in believing that the ergot is capable of producing abortion at any period of utero-gestation.

Dr. Chatard, of Baltimore, tried its effects upon six cats, all more or less advanced in pregnancy. On the first, it acted as an emetic; the second was slightly purged; the third, fourth, and fifth, were not at all affected by it, although the last took a double dose of it at once, i. e. two drachms in powder; the sixth, half advanced in pregnancy, to which he gave but one drachm, had her legs paralyzed for a short time, in less than one hour, and abortion took place in twenty-four hours, preceded by considerable hemorrhage.†

More recently several experiments were made upon different animals, by Mr. Wright, without producing any effect.‡

The only inference to be drawn from the foregoing facts is, that although ergot is capable of causing abortion in animals, it does not do so with any degree of certainty or uniformity.

That ergot has the power of producing premature labor in the human subject, is now established by such a number of well attested cases, as to leave no reasonable doubt on the subject.

Dr. Oslere, in a paper published in 1825, states that this had been successfully practised by Prof. James, in the case of

*Philadelphia Journal of Med. and Phys. Sciences, vol. xi. p. 113.
†New-York Medical Repository, vol. xxi. p. 163.
‡Edinb. Med. and Surg. Journal for Jan. 1840, p. 31.

a woman whose pelvis was too small to permit the passage of a full grown child. She had several times been pregnant, and in every case the operation of embryulcia had been resorted to for her delivery. In a subsequent pregnancy, Dr. James suggested the propriety of bringing on premature labor by the use of ergot, and this was accomplished with success, not only in this but in several subsequent pregnancies.*

Dr Chatard relates a case in which hemorrhage occurred at the fourth month of pregnancy. Every means used to arrest it having failed, twelve grains of ergot were given with the effect of arresting the hemorrhage. On the next day, the hemorrhage returning, a similar dose was given, and in a few hours the female aborted.†

Dr. Dewees relates the following case: A female, whose husband had been absent a long time, became pregnant by illicit connexion. Wishing to conceal her guilt she applied to a physician, who gave her some powders which he said would produce abortion. After taking several of them, severe pains came on, with hemorrhage. In this state she was found by Dr. Dewees, and shortly after she was delivered of twins at about the fifth month. On examining a powder which was left, and which was similar to those she had taken, Dr. Dewees found it to be a drachm of powdered ergot.‡

Dr. Weike relates the case of a female attacked with hemorrhage in the fourth month of pregnancy. After continuing violently for three days without any appearance of the expulsion of the fœtus, and when the woman was apparently dying from the loss of blood, eight grains of ergot were ordered to be given every half hour. After the third dose labor pains came on, and she had scarcely taken the fourth before the fœtus was expelled.§

The most satisfactory testimony, however, on this subject, is that which has been furnished within a few years by several British physicians. In 1834 Dr. F. H. Ramsbotham, of London, detailed six cases, in which it was necessary to induce premature labor, and in all it was successfully brought about by the use of ergot. In the first case the pregnancy had advanced to eight months; in the second to seven and a half; in the third to seven and a half; in the fourth to seven and a half; in the fifth to eight; and in the sixth to seven and a half months.‖

*Philad. Journal of the Med. & Phys. Sciences, vol. xi. p. 114.
†N. Y. Med. Repository, vol. xxi. p. 163.
‡American Jour. Med, Sciences, vol. iii. p. 408.
§British and Foreign Review, vol. ii. p. 276.
‖London Medical Gazette, Jnne, 1834, p. 436.

In a subsequent paper, Dr. Ramsbotham has given an account of his practice in those cases in which, from the narrowness of the pelvis, he was obliged to resort to the induction of premature labor. Of these he states that in all he had had sixty-two cases. In thirty-six cases the membranes were punctured, and in twenty-one of these the children were born alive, and sixteen were still-born. In twenty-six the labor was induced by ergot, without any other means being used; of these twelve were born alive, and fourteen still-born. Besides establishing, beyond all doubt, the fact that ergot is capable of exciting the uterus into action anterior to the full term, this report is important in another respect, and this is particularly noticed by the author. It is that the number of still-births in these cases was much greater in proportion in those in which the ergot was used, than in those in which the practice of puncturing the membranes was resorted to. Dr. Ramsbotham adds the remark, that he has seen the stimulating effects of ergot on the uterus in numerous cases of dangerous hemorrhage in the early months, when it was desirable to procure a complete evacuation of that organ, and where no manual or instrumental means could be put in practice.*

Dr. Paterson, of Glasgow, has reported the case of a woman in whom he succeeded in bringing on premature labor in two successive pregnancies by the use of ergot. In both cases it was about the seventh month.†

A similar case is reported by Dr. Heane, in which the ergot effected a premature delivery at the seventh month.‡

Another case occurred under the care of M. Dubois, of Paris, in the person of a dwarf, who in her first pregnancy was obliged to be delivered by perforating the head, and thus bringing away the child. On becoming pregnant a second time, he determined on bringing on premature labor at the eighth month, by dilating the os uteri and the use of ergot. This was accordingly done with success, and a living child delivered.§

The foregoing evidence is conclusive as to the fact that ergot does exert its action on the uterus anterior to the full term of pregnancy. What the earliest period is, at which it is capable of producing this effect, it is impossible at present to determine.

IV. *To what extent are we justified in using ergot?* If

*London Medical Gazette for June, 1839, p. 422.
†Ibid, for June, 1839, p. 333.
‡Ibid, for January, 1839, p. 639.
§Dunglison's American Med. Intelligencer, vol. iv. p. 126.

there be any truth or force in what has been said in relation to the effects of this article on the child, the answer to this question is obvious. In a professional as well as moral point of view, we have no more right to trifle with the life of the child than we have with the life of the mother. When, however, from the nature of the case, it becomes manifest that the life of the mother is in danger, we are not merely justified in using, but it is a positive duty to do so, every means to save her, disregarding every consequence that may result to the child. Now it is for such contingencies that I conceive that ergot ought to be reserved. It should accordingly, I think, never be used except in cases where nature is incompetent to a safe delivery. By too many, it is to be feared, it has been and still is used merely as a *time-saving* agent. Than this, I cannot conceive of any practice more unjustifiable and reprehensible. As a general rule, nature is competent to a safe delivery, and we may rest assured that the best plan is to leave her alone to accomplish the work. Artificial and violent interference, whether it be applied in the shape of instruments or by the use of ergot, cannot but be improper.—*Transactions of the Med. Soc. of New-York. Vol. V. Part* 1.

History of the last illness of Sir A. P. Cooper, Bart., and examination of the body after death.—For many months previous to his last illness, Sir Astley Cooper had occasionally experienced great dyspnœa, upon the slightest exertion; and it had been observed by his friends that the peculiarity of his complexion bespoke some serious impediment to the circulation. It was not, however, till about six weeks before his death that he found difficulty in assuming the recumbent posture; and about that time he began to pass the greater part of his nights in the arm-chair, rather than attempt to lie down. He still continued to see a few patients during the day, both at home and at their own houses. He now became the subject of frequent cough; which was immediately brought on, if he attempted to recline. The gout, of which he had for several years experienced periodical attacks, showed itself imperfectly in the fore-finger of the left hand; and his legs began to swell, owing to the depending position in which they constantly remained.

During all this time he refused medical aid; and it was not till the 22d of January that he consented to see any one, to

whom he might state his symptoms. At the time he was first visited, he was sitting in his chair, with his body inclined forward, and his chin nearly resting on his chest; the pulse accelerated; not the slightest *bruit* nor abnormal sound in the heart, though the beat was extensive, and heard quite to the right side of the chest. The lungs afforded considerable bronchial rattle, but were neither consolidated nor compressed, and filled both cavities of the chest.

Although remedies appeared more than once to produce a temporary remission of his symptoms, and a further attack of gout in one foot seemed to afford some relief to the chest, yet, upon the whole, the disease advanced, and was attended by frightful fits of dyspnœa, during which his face was purple and his mind confused; and it was in one of these paroxisms that he died, on the morning of the 12th of February.

Shortly before his death, Sir Astley Cooper expressed a wish that the appearances which should be presented on the inspection of his body might be recorded in the Guy's Hospital Reports. He had particularly alluded to four points, the investigation of which he thought desirable;—a cured oblique inguinal hernia; a cured umbilical hernia; some suspected indications of phthisis in his youth; and an inability to sleep whilst lying on his left side.

Examination of the body of Sir Astley P. Cooper, Bart., in the 73d year of his age, on February 13th, 1841, at 9 o'clock in the evening, 32 hours after death, by Mr. John Hilton, in the presence of Dr. Chambers, Dr. Bright, Mr. C. A. Key, and Mr. Edward Cock.

The weather was warm and damp: there were slight cadaverous indications, from gravitation towards the posterior part of the corpse: the face and anterior part of the body exsanguine: there was a general and extensive œdema of the lower extremities; but no evidence of serous infiltration in the arms, nor in any other part of the surface of the body.

The head was not examined.

A globular projection, about the size of a large nut, was found at the umbilicus; which receded on pressure, leaving a well defined rounded aperture in the linea alba, capable of admitting the end of the little finger. This protrusion consisted of a few congregated lobes of fat placed immediately behind the umbilicus, between it and the peritoneum, the free surface of which was corrugated, and presented a puckered appearance, most probably inflammatory, and the result of

the artificial curative means which had been employed for a long period during life.*

The anterior, thoracic, and abdominal parietes were covered with a layer of fat, about an inch in thickness, soft, and oleaginous. The muscular tissue exposed during the inspection, was pale, soft, and flabby: indeed, the latter expression is applicable to nearly all the tissues. No gaseous or fluid effusion was found in the cavity of the peritoneum: the greater omentum, loaded with adipose matter, was contracted, and did not extend downwards more than two inches from the transverse colon. Some very old membranous adhesions existed between the right angle of the colon and the gall-bladder: cadaveric transudation of the bile from this viscus had slightly tinged the surrounding parts.

The viscera occupied their natural positions; excepting the cœcum, which was completely invested by the peritoneum, and hence less fixed than usual.

The liver healthy in form: some parts of its surface were slightly contracted and uneven; and sections of it presented hepatic venous congestion, approaching what is termed a "nutmeg appearance."

The gall-bladder was small; and contained a moderate quantity of healthy bile, which, upon gentle pressure, passed rapidly into the duodenum.

The spleen was rather larger than natural, its capsule a little opaque, and the interior of the organ very firm; a section presenting a smooth solid surface of a purplish gray colour.

The stomach was large and distended with gas; the cardiac extremity stained brown by cadaveric transudation, or the action of the gastric fluid upon the blood; its tissues appeard quite healthy.

The small intestines presented nothing abnormal: nor was there any thing remarkable in the large intestines, excepting the dilated condition of the cœcum, the parietes of which were thin; its mucous membrane congested.

The pancreas was healthy.

The kidneys were surrounded by a considerable quantity of adipose tissue, remarkably dense, and very firmly adherent to the fibrous capsule of the gland. Both kidneys were much congested with blood, rather larger than natural, their surfaces mottled, and slightly granular. These morbid conditions

*Sir Astley Cooper wore a piece of cork adapted to the umbilicus; and maintained in its place by straps of adhesive plaster, during many years, and until his fatal illness.

were the most evident at the lower part of the left kidney; less advanced but more generally diffused, in the right: and on the anterior surface of the latter, near its convex edge, were found too small cysts, containing a straw-colored fluid.

The supra-renal capsules were healthy.

The urinary bladder was healthy and contracted, and contained about two drachms of whitish turbid urine.

The internal abdominal ring, on the left side, was rendered distinct by a tubular extension of the peritoneum for about an inch into the inguinal canal.

A depression existed in a corresponding situation on the right side, the bottom of which was firm, irregular, and corrugated; and upon very careful examination, a minute serous canal, not more than a line in breadth when opened, was traced extending from it, along the spermatic cord, into the cavity of the tunica vaginalis, being the remains of a congenital inguinal hernia.*

Upon raising the sternum and cartilages of the ribs, both lungs were brought into view; and retained their expanded condition, overlapping the pericardium, and manifesting no disposition to collapse. No pleuritic adhesions existed on either side of the chest; nor was there any effusion, except into the right pleural cavity, which contained about three ounces of sanguinolent rather turbid serum.

A little recent pleuritis was found on the middle lobe of the right lung, rendering it sligntly adherent by plastic effusion to the adjoining ribs to a small extent. Both lungs presented general vesicular emphysema to a very great degree, and their edges were more rounded than natural.

The larynx was not examined.

The lining membrane of the trachea and larger bronchi was smooth, but of a dark purple hue, from congestion in the minute bloodvessels: the same appearances extended throughout the bronchial ramifications, the smaller of which were filled with a very tenacious puriform mucus; and many of them were observed much dilated. Both lungs were extremely congested with dark blood, especially in and near the central portions of their lobes. At the superior and posterior part of the right lung was a small depressed and somewhat contracted surface, about the extent of a sixpence; a section of which exposed a calcerous mass, very uneven upon its surface, and about equal to the size of a small pea: it was placed about three lines distant from the pleura.

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*Sir Astley Cooper wore a truss on the right inguinal canal, from the age of nineteen to twenty-five.

When the pericardium was opened, the heart was seen, very large and distended; and about two ounces of rather dark or brown-colored slightly turbid serum occupied the posterior part of the cavity.

The right auricle and ventricle filled with very dark-colored imperfectly-coagulated blood. The auriculo-ventricular valves sound. Through one of the pulmonary valves, near its angle of union with an adjoining valve, was a perforation nearly the size of a small goose quill. A tolerably firm fibrinous coagulum was found in the pulmonary artery and its branches, extending, by minute prolongations, to the fifth divisions; these were made evident, by withdrawing them in a continuous mass with the forceps.

The left auricle and ventricle were occupied by a large quantity of black grumous half-liquid blood. A large portion of the mitral valve opaque, and a little thickened; otherwise healthy. The aortic valves thickened, and rather rigid at their attached margins; whilst the free margins presented a remarkably healthy appearance for their age.

The left ventricle was much dilated; its apex much broader, and more prolonged than natural: the parietes somewhat hypertrophied; and the muscular fibres of the whole organ were pale, flabby, and weak.

The aorta, which was small and narrow, pursued its usual course, but gave off the left vertebral artery between the left common carotid and left subclavian. The entrance to the arteria innominata was contracted, and slightly irregular.

Many small irregular yellowish opaque patches were seen under the lining membrane of the thoracic aorta and the ascending portion of the left subclavian artery. In the midst of the parts so affected, the internal membrane was much softened, breaking down under slight pressure: at three or four points it was destroyed to a small extent, admitting a thin layer of dark matter, probably altered blood, separating it in a slight degree from the subjacent tissue: this latter state was noticed near the origin of the arteria innominata and the commencement of the descending aorta. The whole length of the abdominal aorta was full of black grumous blood; its parietes thickened; the lining membrane opaque, and raised by the sub-deposition of hard, almost bony matter.—*From Guy's Hospital Reports, in London Med. Gazette.—Med. Examiner.*

Principal circumstances connected with seven cases, in which an Artificial Anus has been established in the adult for the relief of urgent symptoms produced by Stricture of the Rectum. By W. H. WALSHE, M. D.

[1. FINE (An. ?) *Vid Odier, Man. de Medecine*, p. 274, ed. 2, 1818.]—Female, æt. 70. Symptoms of gangrene from fæcal retention; tumour completely obliterating the rectum at its origin.

Opening made at "most prominent part of the abdomen;" one or two stools daily afterwards; patient lived more than a year, and died dropsical.

[2. PILLORE (1776.) *Vid. L'Experience, Janiver* 30, 1840.]—Adult male. No stool for upwards of a month; not a particle of two pounds of mercury, which had been exhibited by the mouth, discharged. Eight or nine inches of the end of the colon and beginning of the rectum totally obstructed from schirrhous induration, &c.

Transverse incision of the integuments above the fold of the right groin, and same of the cæcum; abundant fæcal evacuation. Peritonitic symptoms on the 20th; death on the 28th day. The bowels had not been completely emptied; the exact original weight of mercury being found in a knuckle of the jejunum, behind the bladder.

[3. FREER (1817.) *Vid. Med. and Phys. Journal*, vol. 45, p. 9, 1821.]—Male, æt. 47. Contraction of gut complete; attempt made to divide the stricture; no stool for ten days, vomiting, hiccup, &c.; "death inevitable."

Incision above and within anterior superior spine of the left ilium, and in descending colon; painful evacuation; patient, however, gradually sank, and died on the ninth day.

[4. PRING (1820.) *Vid. Med. and Phys. Journal*, vol. 45, p. 1, 1821.]—Widow, æt. 64. Obstruction seven inches above the anus; total retention of fæces for twelve days.

Incision within and above antero-superior spine of the left ilium, and in descending colon; immediate and forcible discharge of fæces. Three months after, indurated fæces passed through the natural anus, and continued to do so. Six months after, the patient was in good health.

[5. MARTLAND (1824.) *Edinb. Med. and Surg. Journ.* p. 271, 1825.]—Male, æt. 44. A large tumor protruding, as it were, from the neck of the bladder; no stool for twenty-six days; marked stercoral tympanites.

Incision an inch above and within antero-superior spine of the left ilium, and in descending colon; instant escape of fæces and flatus; a year after the patient enjoyed good health; soft stools passed on a few occasions at one period through the natural anus.

[6. Amussat (1839.) *Vid. Gazette Medicale, Oct.* 1839.]—Woman, æt. 48. No stool for upwards of *twenty-six* days; nausea, vomiting &c. Hard, round, immoveable tumours, at the upper part of the rectum.

Incision in left lumbar region, and in descending colon. Four months after the operation, patient in excellent health; one or two evacuations daily; flatus passed by natural anus.

[7. Amussat (1839.) *Vid.* same paper.]—Case previously treated by breaking down fungous masses in the rectum, and subsequently by cauterization. Patient in a deplorable state.

Opening made in left lumbar region and in descending colon; no escape of fæces till the fifth day. Four months after, the patient in a better state than before the operation, and about to quit Paris for the country.

"When the disease is cancerous, the chances of ultimate advantage are, of course, vastly less than in cases of retention from simple induration; but even here it may be justifiably performed, provided the patient, after having been made fully acquainted with the nature and likelihood of the benefit to follow, still desires to undergo it." It is scarcely necessary to add, in defence of this position, that (even admitting the benefit obtained to be necessarily of short duration, which is by no means certain,) there are cases wherein the preservation of a given life, even for a few days, may be of the utmost consequence to families, in a worldly point of view.

It will be observed that in Pillore's case the unfortunate issue probably depended on the obstruction caused by the gravitation of the mercury in the pelvis: the site of the incision was also evidently ill-judged. The cause of death in Freer's case does not very clearly appear from his details.

M. Amussat's motives for preferring the operation proposed by Callisen (the lumbar incision, whereby implication of the peritoneum is avoided) to the inguino-abdominal incision of Littre, are explained in his papers referred to.—*London Med. Gaz.—Ibid.*

On Effusions into the Cavity of the Thorax, and a new method of evacuating them. By **M. Reybard.**—The new method proposed by M. Reybard for the evacuation of fluids effused into the cavity of the thorax is, "to leave the opening which may be made in the thorax free during each act of expiration, but to close it during each inspiration," and thus prevent the ingress of air into the thoracic cavity, to which he attributes the numerous failures of the operation for empyema, &c. For this purpose he introduces into the wound a tube or canula, to the extremity of which is attached a portion of cat's intestine, softened by immersion in warm water, about three inches long and open at both ends. During expiration, this instrument gives free passage to any puss or fluid from the cavity of the thorax; but during inspiration the sides of the gut collapse, and, acting as a valve, completely prevent the air from entering the thorax.

Having performed several experiments with his valved canula on animals, and acquired a conviction of its utility, the author employed it on several occasions of empyema and hydrothorax, four of which he describes at considerable length. In one case, the patient was cured on the fifteenth day; in another, on the thirty-fifth day; in a third, it required four months of constant care before the wound in the thorax was completely healed.—*Provincial Medical and Surgical Journal. Ibid.*

THE WESTERN JOURNAL

Vol. IV.—No. I.

LOUISVILLE, JULY 1, 1841.

CONTRIBUTIONS TO THE PATHOLOGICAL MUSEUM OF THE MEDICAL INSTITUTE OF LOUISVILLE.

We should have apologized for not having at an earlier period acknowledged the receipt of the following specimens, many of which are valuable. It will, we hope, be gratifying to the friends of science who sent them, to know that they are used in the illustration of the lectures on Pathological Anatomy, Surgery, and Obstetrics, in the Institute, and thus made to contribute to the education of the students of the West. We return our thanks to the doners, and respectfully solicit from them, and their brethren, additional contributions. They will be permanently preserved and labelled with the names of those who send them; and an account of the cases kept in a register provided for that purpose.

KENTUCKY.

From DR. JOHN C. BRENT, late of *Louisville*.

A large, firm adipose tumour, successfully extirpated, by himself, from the neck of a lady.

A polypus of the gelatinoid variety, taken by himself from the nose of a gentleman.

From Dr. Samuel B. Richardson of the same city.

A specimen of carcinomatous liver, the disease extending to the gall bladder which contained several *black* biliary calculi.

A gelatinous polypus, extracted by himself from the nose of a young lady.

From Dr. William T. Taliaferro, of *Maysville*.

A fibrous uterine polypus, removed by himself.

From Dr. John M. Duke, of the same city.

A heart showing the ravages of pericarditis.

OHIO.

From the late Dr. Dudley W. Rhodes of *Zanesville*.

A very large encephaloid tumour, from the upper part of the cavity of the abdomen. We may hereafter give a history of the case.

A testis and epidydimus, enlarged and indurated by chronic inflammation. Successfully extirpated by himself.

An osseous specimen from an aged female, in which the entire neck of the os femoris had been absorbed.

From Dr. J. J. Brice, of *Newark*.

A specimen of strongylus, six inches long, discharged from the bladder of a female patient.

From Dr. John W. Russell, of *Mount Vernon*.

Four specimens of urinary calculi, extracted by himself.

From Dr. John Dawson, Jr., of *Jamestown*.

A specimen of intussuscepted ileon, more than two feet long, discharged per anum, his patient recovering.

From Dr. Davius Maxon, of *Gallipolis*.

An uncommonly voluminous adipose tumour extirpated by himself, from the back part of the thorax of a woman.

A scirrhous breast, likewise successfully extirpated by himself.

A pin discharged through the parieties of the abdomen, nineteen years after it had been swallowed.

INDIANA.

From Doctor Rogers, of *Madison*.

A large fibrous tumour successfully removed by himself from the arm of a child eighteen months old.

ARKANSAS.

From Dr. P. M. Enders, of *Van Buren*.

A hypertrophied heart with valvular vegetations. D.

CONTRIBUTIONS TO OUR JOURNAL BY SOCIETIES.

It will be seen, that we are indebted to the *Medical Society of Tennessee* and to the *Louisville Disirict Medical Association*, for several original papers, published in this number. It is truly refreshing to find our physicians meeting for some other purpose than to enact laws against ungentlemanly conduct; or to listen to public *elementary* lectures on things which every student ought to know. The true ends of all Medical Associations appear to us to be the three following: First, that the physicians of the same country may become personally acquainted, and thus widen the sphere of their social enjoyments;—second, that they may plan and give an impulse to the execution of those works of benevolence and patriotism, which should originate with our profession:—that they may contribute to it the results of their observation, experience and experiments—to be discussed and published. Of these objects the last is unquestionably the most important; and all of them should be placed before blue-law legislation, and public *ad captandum vulgus* orations and addresses, composed of ideas, *uncommon* only in the fanatical concentration they may receive, or the new costume in which they may be arrayed. There is not in the "wide world" a nobler and richer field for original Medical and Physiological observation, than our beloved WEST and SOUTH present, and in every part of both, there are scientific physicians, who if they would diligently observe, and industriously communicate to each other, at stated times, the results of their observation, to be then and there scrutinized, would do more for the elevation of our professional character than could be accomplished in any other way. With these views before us, we respectfully urge upon all Societies and Associations now existing among us, or that may be, hereafter, formed, to turn their attention to this object, with renewed energy. We shall at all times be happy to give publicity to every paper which contains new facts or suggestions, which will at once make them extensively known, for our monthly reaches all the great divisions of the Mississippi Valley.

D.

MILK SICKNESS.

The "*Mill Stone Knob*" in Sumner county, Tenn., is one of the localities which have been famed, since the settlement of the country, for giving rise to milk-sickness. It is now generally called the "*poison* knob." Yet domestic animals of every description may be seen, at this season,

feeding upon the grass which grows luxuriantly on its sides wherever the sun has gained admission to the soil, and it is understood that they may continue to range it with safety until about the commencement of winter. In a hasty excursion which we made to the knob, a few weeks since, we saw, every now and then, the spot where a fire had been kindled to consume the carcass of some animal which had perished of the poison. Such occurrences, we learnt, were still not uncommon in the neighborhood, yet owing to the caution of the people in keeping their milch-cows upon pastures which have been cultivated, a case of poisoning in the human subject has not occurred for three years. The country around the knob is thickly settled, and families are found living on the sides of the hill. They feel safe so long as they abstain from the flesh and milk of animals that have been ranging the "poison knob," or in other words, while they confine their stock to their own cultivated grounds. This knob is one of the most fertile spots to be seen in that fertile region of country, and has a black, rich soil to its very summit, which is now covered with a luxuriant growth of cane. So fine is the pasture upon it, in winter, that persons drive their young cattle to it to pass that season. A few die of the poison, but they feel themselves indemnified in the saving of forage and labor that would be necessary to take the survivors through the winter. I need hardly add, that the cause of this singular disease has not been discovered. The *remedy* for it is *prevention*, and this consists in bringing the soil under the dominion of the plough. One year's cultivation effectually eradicates the poison, and forever afterwards the lands infected by it, if sowed in grass, may be depastured with impunity. It is a fact attested by all with whom I conversed, that hogs and buzzards, as well as hens and turkeys, are poisoned by the flesh of animals that have died from this cause. Dr. Graffe, it may be known to some of the readers of this Journal, came to a contrary conclusion after some experiments upon the hog, as related in a late number of the Medical Examiner. Y.

A NEW CURE FOR HYDROCELE.

Colonel W. M., a gentleman of Smith County, Tenn., eminent for his public and private worth, aged about 75 years, had been the subject of hydrocele during nearly a third part of that time, and although the collection of the fluid had been slow, the tumor had attained a very uncomfortable size before he was relieved of it by an operation which, in this connexion, may be termed novel. In attempting to mount his horse,

early in May last, his saddle turned and he fell on the other side upon his shoulders, by which his body received a smart concussion but no injury. He rose without difficulty, and proceeded to the place of religious worship where he was going, feeling only some slight pain and a sense of tension in the tumor along the course of the spermatic cord. A few nights after the fall he thought that he found less trouble than usual in disposing of the tumor preparatory to sleeping, but it did not occur to him that this was owing to its being diminished in size, nor was his attention called to this circumstance until a week after the accident, when on retiring to bed he was surprised at finding that it had entirely disappeared. In one week the collection of fluid, amounting, it is supposed, to a quart, was taken up by absorption, in consequence, it would seem, of a new action in the parts set up by the shock given by the fall. It has now been upwards of five weeks since the Colonel was thus most unexpectedly relieved of his infirmity, and there is yet no appearance of its return.

A circumstance followed the termination of this case which the physicians who attended the Colonel believed had some connexion with the absorption of the fluid. He was attacked, seven days after the tumor vanished, with profuse diarrhœa, his discharges resembling the rice-water passages in cholera. He was greatly prostrated by the disease, one of the most distressing symptoms of which was an uncontrollable propensity to sleep. He recovered gradually, and now enjoys excellent health. He is a man of strict temperance and regular habits, and is not conscious of having brought on the attack of diarrhœa by any indiscretion. His case is a curious one as to the mode in which he was relieved of the hydropic effusion, and not less so if it be admitted, that the discharge of the absorbed fluid from the system through the bowels was the cause of the diarrhœa, which, we confess, we are not quite prepared to do. Y.

FEVER. BY M. L. LINTON, M. D.

Dear Sir:—I shall, in the present communication, afford you a very brief account of the various forms of fever which have prevailed in this and the adjoining counties during the past autumn and winter—a task which I should not attempt, but for some highly important therapeutic facts, furnished me by Dr. Shuck, a very respectable practitioner of a neighboring town. All the physicians, with whom I have conversed on the subject, (for I arrived at home too late to observe for myself,) repre-

sent the disease as congestive and adynamic from the beginning—rarely followed by much reaction—promptly fatal in a great many cases, and not yielding with facility to the ordinary modes of treatment in any. The winter diseases (which I have had the opportunity of observing) have been of the same type, and even pleurisy and other inflammatory affections of the chest have been best treated without bleeding or with very little. But to proceed to Dr. Shuck's communication. Speaking of the epidemic of last winter, he says, "The disease was ushered in by symptoms not apparently different from those of ordinary intermittent and remittent fever; and that tightness and tenderness of the epigastrium were rarely absent. We gave to it the general appellation of congestive fever, though there was every variety of type from the perfectly intermittent to the purely continued. Those cases in which the apyrexia was distinct, I treated successfully with quinine. The remittent and continued forms, I treated, at the commencement of the season, by bleeding, purging, and other antiphlogistic means common in such cases. This, as far as I know, was the treatment pursued by all the members of the profession in this place, and all had equally bad success. I recollect no case of recovery in which free bleeding was resorted to, and but very few where large and repeated doses of calomel were given."

I became dissatisfied with our mode of treatment, and determined to use quinine in all cases, even the most decidedly continued. The first case to which I was called after coming to this resolution, was a robust and somewhat intemperate man about forty years of age. He had had fever several days when I first saw him—it was of the continued form—he had been bled the day previous to my visit, but without any relief. I immediately gave him 15 grs. of calomel with a little rhubarb: it acted, but the patient remained in the same condition. I then gave him quinine freely every hour during eight hours—then directed a second purge similar to the first—then the quinine as before. Before the expiration of the first eight hours the fever subsided, and a free perspiration supervened. Convalesence was rapid. After this I treated all my cases in a similar way, and *lost not a single one*, though I had a great number. I treated one hundred and fifty-three cases of the prevailing fever of last summer, and lost but one, and that was a black child that had been neglected in the commencement.

One occurrence I must narrate before I close. On the 10th of July last I was called to see Mr. B., a gentleman of middle age and delicate constitution. He told me that he had had a chill some days previous; and that his fever had continued from that time. He required me to bleed him, assuring me that he had always found bleeding and purging his best remedies under similar circumstances. I remonstrated with him, and gave him the history of my treatment of the disease; but he could

not be convinced that he did not understand his own case better than I did, and was therefore inflexible in his demands for bleeding, &c. His pulse was full—skin hot—thirst great. I bled him to the amount of a pint—his pulse sunk, but he was not at all relieved—became restless and complained of great prostration. He then gave up his case into my hands; though on the next day he requested me to bleed him again, which I positively refused to do. I commenced by giving a dose of colomel followed by castor oil, which produced free bilious discharges. I then commenced with the quinine; but owing to the irritable condition of his stomach, it was given in small portions. His case was very protracted, but he ultimately recovered. On the same day that B. was attacked, another gentleman in his immediate vicinity was attacked with the same disease, alike in all the symptoms as described by several intelligent gentlemen who were intimate friends of both the sick men, and saw them every day. This gentleman, Mr. M., was treated by a physician who adopted the depleting plan. He was bled on the same day that I bled Mr. B. He was then freely purged. The next day the bleeding was repeated, and the patient sunk rapidly, and died. I have not a shadow of doubt that such would have been the fate of Mr. B. had I repeated the bleeding; and I can unequivocally assert, that the cases in Lebanon and its vicinity, when treated by the depleting plan, generally terminated unfavorably; and that those which were treated with quinine recovered almost without an exception."

As my paper is almost exhausted, I shall close by rehearsing the Doctor's treatment in a few words. He commences generally with a dose of calomel and rhubarb, or an emeto-cathartic, by the action of which the contents of the bowels were evacuated—then gave the quinine every hour for about eight hours, in two or three grain doses—then used another purgative, and again resumed the quinine as before; sometimes the repetition of the course was unnecessary. In every case the quinine seems to have induced a pleasant perspiration. I have already said that the Doctor employed the above plan in the continued as well as the intermittent forms of the epidemic, and with similar success. In his communication to me he states, that the dysentery, which prevailed concomitantly, was equally amenable to the same course. I have no room for comment, nor do the foregoing facts need any. They show the necessity for close observation—especially *at the commencement* of epidemics. That course which cures the first three or four cases will, with slight variations and occasional exceptions, cure the rest, and vice versa—and thus a therapeutic rule is furnished of more practical utility, than any that could be arrived at by a priori reasoning on general principles. This is not a new rule, to be sure, for I believe it was the Father of Medicine who said—*Naturam morborum curationes ostendunt.*

SPRINGFIELD, KY., May 4, 1841.

TENOTOMY.

We had the pleasure of witnessing this operation a short time since by Dr. Thompson, of Hartsville, Tenn., assisted by Drs. Debow and Duvall of the same place. The subject was a little boy, 10 years of age, the son of Mr. Dalton, in whom an abscess in the ham, some years before, had produced a considerable shortening of the gastrocnemii muscles, so that the lad walked on his toes. The tendo-Achillis was divided, and the foot brought at once nearly to its natural position. The most perfect success promised to attend the operation. We would call the attention of our professional brethren to the distortions of the extremities demanding this operation. They are to be met with in almost every neighborhood, and their remedy by tenotomy constitutes one of the most striking and pleasing triumphs of modern Surgery.

Y

TRANSYLVANIA UNIVERSITY.

A short delay in the issuing of our last number enabled us barely to mention the election of a professor of the Theory and Practice of Medicine in this University, as the successor of Professor Smith, who has returned to Baltimore. Dr. Elisha Bartlet, of Lowell, Massachusetts, the new incumbent, is, no doubt, a man of talents and learning, who has claims to the confidence of the public of a higher order than that of standing, as the Dean informs us, at the head of the list of contributors to the American Journal of the Medical Sciences, when that list is *alphabetical*.

OBITUARY.

If we but seldom mention the death of Medical gentlemen, it is from no disrespect to their memories, but through inadvertence, or ignorance of the event.

Died, at Marietta, O. on the 27th of May, of Pulmonary Consumption, John C. Stone, M. D. a native of that State, and a young physician of respectable promise.

D.

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